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# MOTORTREND

SPECIAL ISSUE



MOTORTREND  
GROUP  
JULY 2021



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IN ACTION

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AMERICA  
HOST AND GUEST  
EDITOR ROB CORDDRY

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JULY 2021 GUEST-EDITED BY ROB CORDDRY



**ON THE COVER**  
In *Control* Top Gear America co-host Rob Corddry hits the streets in some of today's (and yesterday's) hottest metal. Photo: Povi Pullinen



## HOST WITH THE MOST

Our new boss packed this issue full of great driver's cars.

## Tests & Drives

- 24 THE EVOLUTION OF AN ENTHUSIAST** An inside look at *Top Gear America* Discover what makes co-host Rob Corddry tick. *Derek Powell*
- 30 NEVER TOO LATE** There's no restriction on when you can learn new skills Randy Pobst takes a TGA host to the asphalt classroom. *Rob Corddry*
- 36 DRAFT ONE** 2001 Acura Integra Type R & 2021 Honda Civic Type R Limited Edition A look back at an early Type R, with literary revisions. *Jethro Bovingdon & Rob Corddry*
- 44 AGING GRACEFULLY** The original Porsche Boxster & 2021 718 Boxster 25 Years Celebrating the car that helped save the company. *Mac Morrison*



- 50 LUXURIOUS EMBRACE** 2021 Bentley Flying Spur V8 & 2021 Rolls-Royce Ghost For just a day, life gets back to "normal." *Scott Evans & Aaron Gold*
- 68 HEADS AND HEARTS COLLIDE** 2020 BMW M2 CS vs. 2021 Porsche 718 Cayman GT4 In a battle between engagement and slick perfection, which one comes out on top? *Scott Evans*



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**09-09595-001-E40701**





12

**FIRST LOOK**

Everything we know about the GMC Hummer SUV, slated to hit dealerships in 2023.

## Departments & Features

- 10 Editor's Letter** Meet our new boss.
- 12 Intake** This month's hot metal.
- 20 Technologue** Can artificial intelligence ease congestion?
- 22 Interview Seiji Watanabe**  
Mitsubishi Head of Design
- 23 Your Say** Readers respond to our May issue.
- 56 Time Flies *Fast & Furious* turns 20**  
We reflect on 20 years of cinematic history.  
Scott Evans, Aaron Gold & Greg Fink
- 82 The Big Picture** What to do about our crumbling roadways?



10



20



56

**ARRIVAL**

The mid-engine Corvette finds a home in our fleet.

74

## MTGARAGE



**UPDATES** BMW 228i • BMW X7  
Hyundai Sonata • Kia Telluride  
Subaru Outback Toyota Supra • Toyota Venza

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**Road Test Analyst** Alan Lau

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**Social Media Manager** Carol Ngo  
**Social Media Editor** Billy Rehbock

## Contributors

**Correspondents** Jethro Bovingdon, Mike Connor, Randy Pobst, Derek Powell  
**Photographers** Wesley Allison, Evan Klein, James Lipman, Kenny Nakajima, Steven Pham, Povi Pullinen, Jessica Walker  
**Artists** Avarvarii Illustration, Paul Laguerre

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**VP, General Manager** Steve Freeman

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For more information, please contact us at,  
[Info@Motortrendcertified.com](mailto:Info@Motortrendcertified.com)

**MOTORTREND  
GROUP**

## Advertising

**Detroit** 4327 Delemere Court, Royal Oak, MI 48073 Tel: (248) 594-5999  
 Laurie Felton, Bill Waldman

**Los Angeles** 831 S. Douglas St., El Segundo, CA 90245 Tel: (310) 531-9900  
 Chuck Miller, Matt Smith

**New York** 1180 6th Avenue, 9th Floor, New York, NY 10036 Tel: (212) 915-4413  
 Ryan Bahoshy, Janet Catallo

**Chicago** 180 N. Stetson Avenue, Suite 3300, Chicago, IL 60601 Tel: (312) 470-3441  
 Mason Alwan

## Marketing Director

Shawn Higgins

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# Editor's Note



# HIGHWAY ROBBERY

There's a New MT Boss in Town



Welcome, tiny percentage of *MotorTrend* readers who actually read the editor's monthly musings in these first pages of every edition! Man, are you in for a treat. You've probably already noticed something's different, not quite right. Or ... is it so wrong that it couldn't be *more* right?

What tipped you off? My warm, gentlemanly greeting? Or was it my devil-may-care style of prose, tumbling gracefully like a figure skater who *just* broke a shin bone or two. Was that it?

Most likely, you looked at the cover, saw my face, then screamed victoriously, like a bald eagle after gobbling up a delicious puppy. Then, in a high-pitched register, you called out to anyone within earshot: "The sportscaster dude from *Anchorman* is the guest editor of *MotorTrend* this month?! F yeah!"

Yes and no. You're actually thinking of the other bald guy in funny movies, Dave Koechner. That's cool, we both get it a lot, and he is hilarious. But I'm *actually* the bald guy from *Top Gear America* ... or *Ballers*? *Hot Tub Time Machine*? Whatever, it doesn't matter, anyway; just step into my custom van and help yourself to some hard candies, because we're gonna give *MotorTrend* the beans.

When *MT's* real editors asked me to man the helm, the first thing I said was, "Yes, please!" because my mother raised me right. The second thing I said was, "Dax Shepard said no, I guess?" That seemed to make them very uncomfortable, lots of throat clearing, etc. So, to clear the air, I got down to business.

My first demand was for *complete and total* control over my issue, right down to commissioning writers and doing the photo editing myself. They immediately came back with, "Absolutely not."

"Cool," was my reply. (I'm pretty awesome at negotiating.) "How much do I get paid?"

"Zero dollars."

"Hmmm ..."

I let them sweat it out for a whole 10 minutes of silence before saying, "You folks have got yourselves a deal." And everyone left the negotiating table happy, feeling like *they* won, you know?

Now it was time to think about what I wanted to do with my edition. I didn't want it to feel anything like the gross examples of blatant self-promotion

that usually pose as a celebrity guest-editorship. So, I won't be telling you to **WATCH TOP GEAR AMERICA, streaming NOW on the MotorTrend app!** (Guys, make that last sentence look big and splashy, but not too over the top, you know? Ooooh, can you make it sparkly?! But subtle sparkly! No! Better idea ... like a pop-up book!)

One thing is for sure: This will still be the *MotorTrend* you look forward to every month.

On a more serious tip, I *do* look forward to it. Very much so. There may be nothing I enjoy more than finding time to stretch out and read a good car mag (yes, even this monthly editor's note). It's a good time, guaranteed. Because while the universe of cars, driving cars, car parts, and parts of car parts is something inherently definable, it still manages to remain wildly subjective. Because we, the car enthusiasts, are as important as any tie rod or differential. A car still needs us to make it go (at least for now), and we can be an opinionated bunch, to say the least. So, reading a car magazine is always a collaborative experience—it's like an off-key sing-along!

A few old friends will join, friends you'll recognize from ... I don't know, just about *everything* car-related. First, *TGA* producer and prolific car journalist Derek Powell and I have a spirited, dare I say *game-changing* back and forth on the subject of *Top Gear America*: behind the scenes. All your questions get answered. Questions like:

Is fellow co-host Dax Shepard from Detroit?

Who writes the episodes?

How do the writers feel when the hosts pee on their scripts and refuse to say anything the writers have worked so hard to write?

What part of Detroit? Because I have a friend that lives off 6 Mile Road ... does Dax know Maureen?

And of course, the big one: Who is the Stig ...

... Sleeping with these days?

Also, what's the Stig's net worth and birth sign? And how many Stig children are there?

The truth is, as of this writing, Derek and I haven't had the chance to speak, so I have no idea what we'll talk about. But I'm looking forward to it. And I know nothing about the Stig except to say I think I have a secret admirer.

Along the way, *MT's* resident racer Randy Pobst gives me some finer points about the art of performance driving. And my *TGA* co-host Jethro Bovingdon drives the Honda Civic Type R and the legendary Acura Integra Type R, a gorgeous example of which Honda delivered to us from its museum. Jethro wasn't allowed to drive it more than 60 mph, which made him so mad, and nothing makes me laugh harder than a mad Jethro. I do him the honor of adding notes to his piece; I may even grade him, I haven't decided.

Whatever makes him angriest.

Thanks for reading, and thanks to *MotorTrend* for having me. This has been a fun experience that was simultaneously so stressful that what is left of my hair has turned snow white overnight. I look like a U.S. president three years into his second term, like, "North Korea is on the phone *again*?" My phone? Crap. Tell them I just got out of the shower, or something."

Enjoy!

**Rob Corddry**

**My first demand was for complete and total control over my issue.**





**There are no unimportant parts in a car.** Take, for example, the piston ring—a thin piece of metal whose main purpose is to fill the gap between a piston and the cylinder wall. **Every** engine, whether it powers a multimillion-dollar race car or an affordable environmentally conscious hatchback, relies on the durability of its piston rings to function properly. They cost mere cents to make, but are just as vital as the most expensive component. It's no surprise, then, that the first company Soichiro **Honda** founded made piston rings.

Mr. Honda went on to create Honda Motor Co., Ltd., based on the philosophy that, to succeed, you must perfect the basics. This ethos **has** led Honda to build engines that are raced in nearly every level of motorsports, from go-karts to the NTT INDYCAR® SERIES. This is not simply a clever “win on Sunday, sell on Monday” marketing strategy. The close tie between Honda automobiles and Honda Performance Development™ creates a free flow of ideas and engineering know-how that benefits both our race cars and our production cars. The connection is



so strong that many of the cars we develop for **racing** competitions are based on our mass-produced cars, utilizing many of the same key engine components, from turbochargers to piston rings. This means the Honda you drive has been built with the same passion for performance that goes into our race cars.

When it comes to the NTT INDYCAR® SERIES, no other manufacturer comes close to the success of Honda: 252 victories, 17 drivers' titles, 9 manufacturers' championships, and 13 Indianapolis 500® wins. In 2023, Honda will begin racing a new 2.4-liter twin-turbocharged V-6 hybrid engine **in** the series, part of our commitment to continue our lead in performance innovation. The lessons we learn on the track will make their way into our production cars, the same way our dedication to engineering excellent automobiles makes **its** way to the track—just as Soichiro Honda intended. As a competitive racer himself, he believed in his **heart** that “racing improves the breed.” It's this spirit that will keep Honda at the forefront of racing technology, perfecting the basics, even when the time of piston rings and internal combustion is far behind us.



# Trend 7.21

# FIRST LOOK

# BIG POWER, BIG LUXURY,

# JUST PLAIN BIG

WORDS ALISA PRIDDLE  
PHOTOGRAPHY STEVEN PHAM

## 2024 GMC HUMMER EV SUV

One of the more unexpected resurrections of a seemingly dead nameplate continues. Meet the 2024 GMC Hummer EV SUV, a sibling to GMC's 2022 Hummer EV pickup. As you might remember, the Hummer brand burned out before it could fade away, shifting from macho fashion accessory to environmental pariah before being killed off in 2010 in the wake of GM's bankruptcy. But it's back in a big way and hoping to put a real—ahem—charge into the EV market, of all things.

The pickup arrives this fall and is on trend; EV pickups are imminent from Ford, Rivian, and others. But the SUV, the body style Hummer is famous for, will be the sales leader once it goes on sale in the first quarter of

2023. As with the truck, the initial SUVs will be Edition 1 models, and you can plan on them being fully loaded, pricey, and available in just one color, in this case Moonshot Green Matte.

Like later SUVs (which will offer a full color palette), the limited-run Edition 1 can be specced to satisfy both on- and off-road-minded customers. The on-road version will start at \$105,595 and get 22-inch wheels, special floor liners, assist steps, and, of course, special badging.

The Extreme Off-Road package is a \$5,000 bundle that swaps in 18-inch wheels with beefy 35-inch tires—and you'll be able to order massive 37s, too. Your five large also nets underbody armor, rock sliders, a front electronic locking differential and “virtual” rear lockers, beefier half-shafts, and underbody cameras that grab a view of the trail even when the windshield is full of sky. Other pertinent details for mud lovers: The breakover angle is 34.4 degrees, the departure angle is 45.6 degrees with the external spare tire (49.0 without), and there are about 13 inches of suspension travel front and rear.

Both the truck and SUV use GM's Ultium EV platform, but because the latter is a bit smaller than the former—there's an







8.9-inch difference in wheelbase—it has a slightly smaller battery pack, translating to a maximum range of about 300 miles versus the pickup’s 350. Those numbers are for the Edition 1 and the \$99,995 EV3X models with two electric motors at the rear axle and one up front.

By spring 2024, the SUV lineup will add two two-motor versions, the EV2X (\$89,995) and EV2 (\$79,995). Expect to travel 300-plus miles in the EV2X, 280 in three-motor models with the Extreme Off-Road pack’s knobby tires, and 250 in the EV2, which has less battery capacity.

The EV3X and Edition 1 bring a full 830 horsepower to bear, and EV2s will make “just” 625 horses. (The pickup’s maximum of 1,000 hp results from its battery pack operating at a slightly higher voltage.) Zero to 60 mph is said to take 3.5 seconds in tri-motor SUVs; the dual-motor models stretch that to 4.0 seconds.

Torque is trickier to explain. GM lists peak output at 11,500 lb-ft, but that figure should be tossed out the window because it’s a measure of twist at the wheels, an uncommon methodology. Our math puts maximum torque at the motors closer to 1,045 lb-ft—still mighty but not quite as shouty.

The chassis has an adaptive air suspension, four-wheel steering, and four-wheel drive that has torque vectoring on the rear axle of three-motor variants. Terrain, Tour, Off-Road, and Tow-Haul modes are joined by special Crab Walk and Extract programs to get out of trouble on the trail. Crab Walk takes advantage of the four-wheel steering to turn each wheel in the same direction by up to 10 degrees to scuttle away

Four removable roof panels can stow in the front trunk (frunk!) in a set of standard vinyl storage bags; pop those off, drop the rear glass, and you’re in a convertible.



from trouble. Extract uses the air suspension to lift the SUV by about 6 inches to clear boulders and other hazards.

But perhaps the most fun is the Adrenaline submode, aka launch control, which initializes the theatrical Watts to Freedom experience. This primes the driver and passengers for takeoff by lowering the suspension and prepping the powertrain and battery pack. The seats then vibrate, and the interior displays flash special graphics. Once the Hummer indicates it’s ready, the driver loads the accelerator pedal and dumps the brake pedal, and everyone aboard screams, “WTF?!”

The EV2 uses 400-volt fast charging, but it can be upgraded to the same

800-volt capacity as the rest of the lineup. Electrons are fed to the battery pack via the charge port on the driver-side rear quarter panel; it’s there because GM figures most large pickup and SUV owners back into spots and it’ll be easier for the cord to reach at public charging stations. The Hummer EVs have a cool charging trick, too: The onboard charger allows electricity to flow in or out, making it possible to power accessories, power a home, or charge another vehicle.

The rear gate is hinged on the right, GM says, to allow a driver to access its handle and open it more conveniently on rough terrain; this will, however, make curbside loading an annoyance for the 99 percent of the time you’re not on a trail.

All new Hummers will be built at the retooled Detroit–Hamtramck plant, which has been renamed Factory Zero to reflect its status as GM’s first dedicated EV assembly facility. It won’t be the last such factory, though, with the Detroit automaker making a soft promise to sell only electric vehicles by 2035. Before that happens, GM must convince buyers to forget the negative baggage of the old Hummer and embrace its electrically powered future.





Intake

# 2021 Honda Ridgeline Sport HPD

Perception Matters: Looking more like a truck is no bad thing

FIRST TEST



Let's get it out of the way: The second-gen Honda Ridgeline looked like a Pilot SUV that had been Sawzalled into a truck—a conversion surprisingly common among L.A.'s pool cleaners. That's not shocking given the Pilot and Ridgeline share a platform, even if the Ridgeline's structure diverges under the bed. But when the pickup launched for 2017, the softer, rounder styling was a retrograde move from the blocky, tough-looking first-gen Ridgeline, and it has remained its biggest drawback.

Enter the refreshed 2021 model. Honda listened to the critics and toughened the Ridgeline right up. The grille and headlights are squarer and more upright, and a power bulge in the hood gives a hint of the baby big-rig look full-size trucks have had since the '94 Dodge Ram. To steal a visual trick from the current Ram, a pair of chrome exhaust tips poke out of the rear bumper to complete the look. The changes are small, but the effect is dramatic.

The updated Ridgeline still doesn't drive like a truck, though, and we're not complaining. A four-corner independent suspension delivers better individual wheel control and significantly less unsprung weight at the rear. As a result, the Ridgeline rides and drives like a modern SUV. It's more planted and confident on pavement and has less body roll than traditional trucks. Bumps are far better absorbed and don't upset the chassis nearly as much. Despite the unique

2021 Honda Ridgeline Sport AWD HPD	
BASE PRICE	\$40,465
PRICE AS TESTED	\$40,465
VEHICLE LAYOUT	Front-engine, AWD, 5-pass, 4-door truck
ENGINE	3.5L/280-hp/262-lb-ft SOHC 24-valve V-6
TRANSMISSION	9-speed automatic
CURB WEIGHT (F/R DIST)	4,444 lb (57/43%)
WHEELBASE	125.2 in
L x W x H	210.2 x 78.6 x 70.8 in
0-60 MPH	6.3 sec
QUARTER MILE	14.8 sec @ 93.2 mph
BRAKING, 60-0 MPH	125 ft
LATERAL ACCELERATION	0.80 g (avg)
MT FIGURE EIGHT	27.8 sec @ 0.61 g (avg)
EPA CITY/HWY/COMB FUEL ECON	18/24/21 mpg
ENERGY CONS, CITY/HWY	187/140 kWh/100 miles
CO2 EMISSIONS, COMB	0.96 lb/mile

suspension design, the Ridgeline Sport still claims the highest payload capacity in its class (1,583 pounds) when equipped with all- or four-wheel drive.

It's an important distinction. Honda's i-VTM4 torque-vectoring AWD system is an impressive piece of engineering that can send up to 70 percent of engine output



to the rear wheels and then send 100 percent of that power to either rear wheel. It's a slick system, and it has pluses and minuses. To the good, the computer can put power exactly where it's needed and alter responses depending on the conditions. This means Sand mode, for example, makes a serious difference off-road, with more wheelspin allowed to maintain vehicle speed and torque vectoring that pushes power to the outside wheel and rotates the truck in a turn. In the minus column, there's no low-range gear for serious crawling, and there are no true lockable differentials. The components and design priorities also limit towing capacity to 5,000 pounds; the best in the class pull 7,500. Design choices also limit the approach, breakover, and departure angles, as well as ground clearance.

If you're buying a midsize truck to pull heavy trailers or go rock crawling, the Ridgeline isn't for you. If you're doing literally anything else, though, it's a seriously compelling option. The dual-opening tailgate drops down or swings open, making loading and unloading heavy cargo a snap; no other midsize truck offers any sort of tailgate flexibility. Same with the optional in-bed stereo system and ultra-strong composite bed. The lockable in-bed trunk is clutch for cargo capacity, and it can turn into a cooler thanks to the drain plug. No other midsize has that, either.

It's easy to be confused about the new Ridgeline's pricing. At first glance, it appears to have gone up a ton, but comparing features tells a different tale. Yes, the base price is thousands more than it was in 2020, but that's because the price-leader FWD version is gone. Compared to last year's AWD model, the price has barely gone up, and it remains on par with the four-wheel-drive, four-door cab competition. You can buy a cheaper midsize truck than the Ridgeline, but only by sacrificing space and some capability.

With the Ridgeline's sad-sack looks addressed, there's really no reason not to recommend it. The Ridgeline isn't for the hardcore, but for those who just want to do basic hauling and a little off-roading, this truck delivers in spades. **Scott Evans**



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Intake

2022 Volkswagen Golf R

A VW Golf that drifts?!

FIRST DRIVE

Drifting a Volkswagen Golf is weird. Like, really weird. The Golf has long been a beacon of front-wheel-drive—and FWD-based all-wheel-drive—excellence, but getting its rear to swing wide typically meant yanking a hand-brake or getting hit by a dump truck.

The new 2022 VW Golf R, however, will happily do power-on tank slappers, drift in a circle, and sashay through a slalom. And it's still a front-driver at its core. Huh?

Credit the new AWD setup, which cans its predecessor's Haldex center differential for an electromechanical rear axle with clutch packs on the shafts to send up to 100 percent of rear-axle torque to the outside rear wheel. Also key is software activated by a fun button marked "Drift," which commands the ESC and rear diff to allow lurid sideways action.

The trick differential also mitigates understeer and helps hold your intended

line in corners. Hammering the R on a skidpad confirmed its mash-it-and-for-get-it abilities, and you can apply huge gobs of power early when exiting corners with no ill effects.

The front brake discs are cross-drilled and an inch larger, and they're pinched by two-piston calipers. They feel strong, and VW's promise of a confident pedal with a short, easily modulated stroke held up to scrutiny. The R's chassis modes noticeably alter steering weight, though the moderate amount of feel is unchanged. VW's familiar EA888 2.0-liter turbo-four makes a stout 315 horsepower and 310 lb-ft here and powers the car to 60 mph in a claimed 4.7-ish seconds. (We ran the last R to 60 mph in 4.5 seconds, so the more powerful '22 might be quicker.)

U.S.-market versions come just one way: fully loaded with leather, a heated steering wheel, and more, making them essentially identical to top-spec Euro cars

but for 15 fewer lb-ft of torque (blame our fuel quality) and concessions to our lighting regs. Our options list won't include the €3,800 (\$4,500) titanium Akropovic exhaust on the R we drove, which is too bad: It sounds maniacal, serving up fat blats on overrun and a shredding buzzsaw note under power. See if a long-lost Slovenian cousin can hook you up.

We will be offered one feature denied the rest of the world: a six-speed manual, a welcome development even if it drops torque further, to 280 lb-ft. A whip-quick DSG automatic is available; exterior color is the only other choice facing R recruits.

The interior is handsome and high-quality, the sport seats comfortable and supportive, and the vast digital real estate crisp and easy to read. We didn't love the touch-sensitive dash and steering wheel controls; they look future-cool, but regular buttons are more reliable and easier to operate. The touchscreen was a bit slow to respond to commands, too, a longtime VW problem.

The regular eighth-generation Golf isn't crossing the Atlantic, only its R and GTI stablemates. Although we're thankful to get Volkswagen's best hot hatches again, this drive proves the excellence baked into the basic MkVIII, making its absence all the more unfortunate. If you need us, we'll be looking for more time in the Golf R so we can ease our sorrow by executing a wicked drift. **Erik Johnson**

2022 Volkswagen Golf R	
BASE PRICE	\$41,000 (est)
VEHICLE LAYOUT	Front-engine, AWD, 5-pass, 4-door hatchback
ENGINE	2.0L/315-hp/280-310-lb-ft turbocharged DOHC 24-valve I-4
TRANSMISSIONS	6-speed manual, 7-speed dual-clutch automatic
CURB WEIGHT	3,100 lb (MT est)
WHEELBASE	103.5 in
L x W x H	168.9 x 70.4 x 57.4 in
0-60 MPH	4.7 sec (mfr est)
EPA CITY/HWY/COMB FUEL ECON	Not yet rated
ON SALE IN U.S.	October (est)



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## Intake

2022 Hyundai Santa Cruz **FIRST LOOK**The truck that's not a *truck* truck

Six years after first emerging as a concept, the 2022 Santa Cruz is here to serve urbanites who need a city companion but also regularly drive out of town to hike, surf, or bike. Hyundai is betting it's as much truck as they need.

The trucklet is essentially the new Tucson SUV with its cargo area open to the sky. The bed is 4 feet by 4 feet, meaning you can fit mountain bikes with the front tires hanging over the tailgate or, with the tailgate in a half-open position, sheets of plywood on ledges molded above the wheelwells. Drop the gate, which supports 500 pounds, and you should be able to strap down a dirt bike. Bed payload capacity is a bit more than 600 pounds, at least 800 pounds less than the average midsize pickup, while tow ratings range from 3,500 to 5,000 pounds.

The composite bed is stubby, but Hyundai still fit in a lockable, Honda Ridgeline-like in-bed trunk with a drain plug. There are enclosed bedside cubbies, one of which has a 115-volt outlet inside. Bumper-corner steps make it easier to clamber into the back, and the bed's floor and side heights are slightly lower than those of the average midsize truck. In addition, LED bed lights are mounted to shine into the trunk when open, and the usual assortment of tie-downs is joined by an optional rail system with movable cleats rated for 250 pounds each.

The tailgate can be adjusted or removed without tools, is

lockable, has soft-drop and soft-close functions, and can be opened with the key fob. A unique (for now) feature is the factory optional roll-up metal tonneau cover. Mounted under the rear window in a rectangular canister, it can be deployed and locked to protect your stuff. It's strong enough for the average person to stand on, with a capacity of 220 pounds.

Front drive is standard; upgrade to HTRAC all-wheel drive (available on any model), and the rear wheels can receive up to 50 percent of the engine's output via a locking-capable, clutched center differential. A 2.5-liter I-4 with 191 horsepower and 181 lb-ft is the base engine, and it works through an eight-speed automatic. The upgrade is a 281-hp, 311-lb-ft 2.5-liter turbocharged I-4 with an eight-speed dual-clutch automatic.

The suspension uses struts up front and a multilink design in the rear, giving the truck a fully independent setup like the Ridgeline. The rear suspension is equipped with standard self-leveling shock absorbers to keep the truck level even when there's weight in the bed or a trailer on the hitch. The tires are Michelin Primacy all-seasons wrapped around 18- or 20-inch wheels; Hyundai isn't

ruling out future off-road packages, but if you want to put the 8.6 inches of ground clearance to work, you need to pick your trail carefully or upgrade the rubber.

The cabin is exactly the same as the Tucson's up front, with a distinct band that houses the air vents. The band is bisected by the infotainment system, which includes an 8.0-inch screen and, even on base trucks, Apple CarPlay and Android Auto.





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Ritzier Santa Cruzers can upgrade to a 10.3-inch central display. Similarly, the standard gauges are analog dials, but a 10.3-inch digital instrument cluster is available. You also get an array of USB ports and a wireless charging pad.

The Santa Cruz diverges from the Tucson in the rear-seat area; those seats now flip up to reveal a removable cargo box, but legroom has been reduced by 4.8 inches to make space for the bed. Still, a 5-foot-9 adult can sit behind a similarly sized person with a little room to spare.

Being based on the Tucson has other advantages, as well. A whole roster of active and passive safety systems are standard, including lane keep assist with lane centering, forward collision alert with automatic emergency braking, and automatic high-beams. Optional safety features include blind-spot cameras, blind-spot collision avoidance, a 360-degree camera system, adaptive cruise control, and more.

The Santa Cruz looks decent on paper, but how well it serves its core audience—and drives—remains to be seen. A few months after its launch this summer, it will face direct competition from the Ford Maverick, another unibody pickup truck aimed at the same buyers. To help state its truck's case, Hyundai plans a slate of dealer-installed accessories likely to include a rooftop cargo basket, off-road lights, and beefier fender flares to cover bigger tires. But right out of the gate, you can spec GoPro mounting points on the front fender flares. Sick, bro. **Scott Evans**

2022 Hyundai Santa Cruz	
BASE PRICE	\$26,000 (est)
VEHICLE LAYOUT	Front-engine, FWD/AWD, 5-pass, 4-door truck
ENGINES	2.5L/191-hp/181-lb-ft DOHC 16-valve I-4; 2.5L/281-hp/311-lb-ft turbocharged DOHC 16-valve I-4
TRANSMISSIONS	8-speed automatic; 8-speed twin-clutch auto
CURB WEIGHT	4,200 lbs (est)
WHEELBASE	118.3 in
LxWxH	195.7 x 75.0 x 66.7 in
0-60 MPH	7.0-8.5 sec (MT est)
EPA CITY/HWY/COMB FUEL ECON	22/28/24 mpg (est)
ENERGY CONSUMPTION, CITY/HWY	153/120 kWh/100 miles (est)
CO2 EMISSIONS, COMB	0.80 lb/mile (est)
ON SALE IN U.S.	Summer

## REAR VIEW

### From the MT Archive ...



50

JULY 1971  
PRICE: \$0.75

History was made in our July 1971 issue when Petersen Publishing, our publisher at the time, folded *Sports Car Graphic* into *MotorTrend*. *Sports Car Graphic* aimed

primarily at enthusiasts who saw beyond an automobile's nation of origin and instead focused on cars that just make you feel good. *Sports Car Graphic* published 122 issues during its May 1961–June 1971 run.



30

JULY 1991  
PRICE: \$2.95

Cheap thrills were the name of the game. Our 10-car pocket-rocket show-down featured the Chevrolet Beretta GTZ, Ford Escort GT, Honda CRX Si, Hyundai Scoupe, Mazda Miata, Nissan 240SX XE Coupe, Nissan NX 2000, Plymouth Laser RS, Saturn Coupe, and Toyota Paseo. The CRX Si earned the win, though if price were no object, we preferred the 240SX.



10

JULY 2011  
PRICE: \$4.99

Our old-versus-new Camaro, Challenger, and Mustang comparison got top billing. This was one of our coolest covers, with four versions: three for newsstands, each featuring an old pony car next to its modern counterpart, and a subscriber version with all six legendary cars sharing the cover.

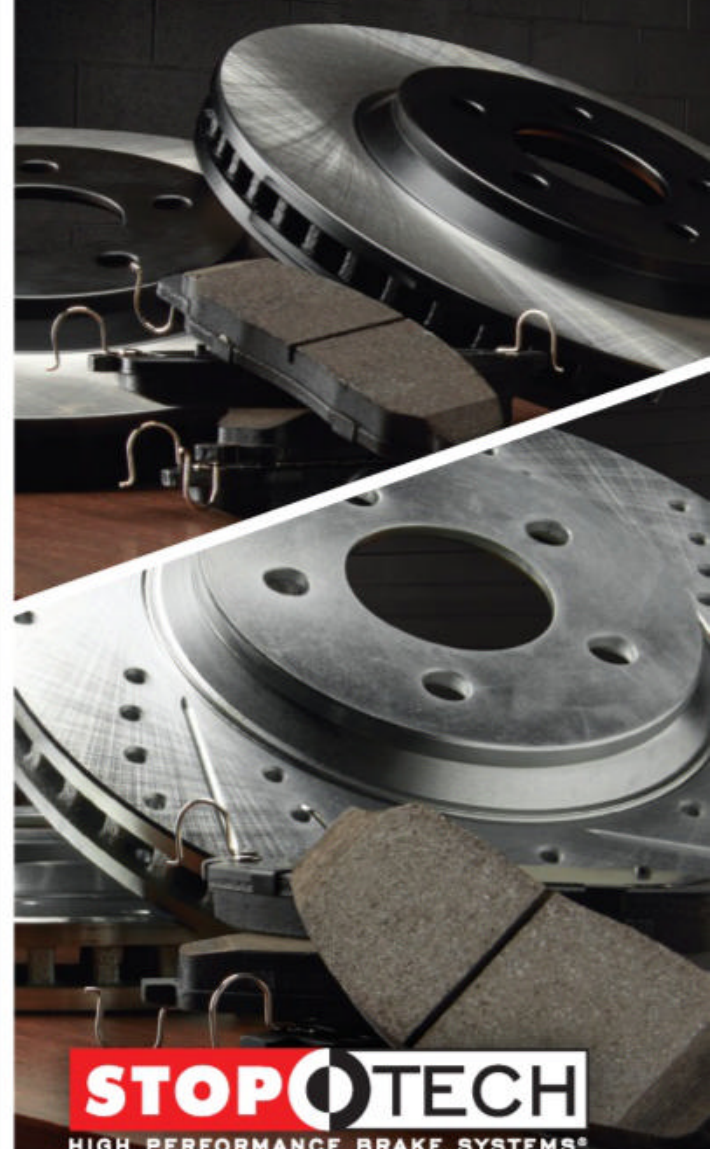


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Frank Markus

## Technologue

## The Israeli Job: “Fixing” traffic control to liberate \$1.2B in lost commuting time

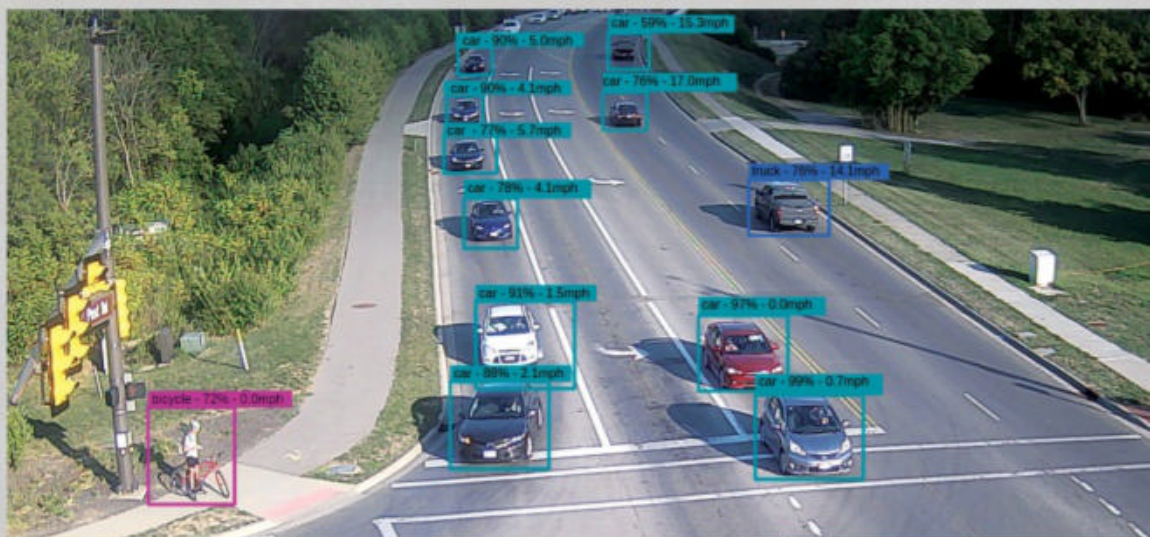
Who hasn't been stuck seething at an interminable red light with zero cross traffic? When this happened one time too many to Uriel Katz, he co-founded Israel-based, Palo Alto, California-headquartered tech startup NoTraffic in 2017. The company claims its cloud- and artificial intelligence-based traffic control system can halve rush-hour times in dense urban areas, reduce annual CO<sub>2</sub> emissions by a half-billion tons in places like Phoenix/Maricopa County, and slash transportation budgets by 70 percent. That sounded mighty free-lunchy, so I got NoTraffic's VP of strategic partnerships, Tom Cooper, on the phone.

Here's how it works: Sensors perceive, identify, and analyze all traffic approaching each intersection, sharing data to the cloud. Here, light timing and traffic flow is adjusted continuously, prioritizing commuting patterns, emergency and evacuation traffic, a temporary parade of bicycles—whatever. Judicious allocation of “green time” means no green or walk-signal time gets wasted.

I assumed such features had long since evolved from the tape-drive traffic control system Michael Cain's team sabotaged in Rome to pull off *The Italian Job* in 1969. Turns out that while most such systems' electronics have evolved, their central intelligence and situational adaptability have not.

Intersections that employ traffic-sensing pavement loops, video cameras, or devices that enable emergency vehicle prioritization still typically rely on hourly traffic-flow predictions for timing. When legacy system suppliers like Siemens offer similar technology with centralized control, it typically requires costly installation of fiber-optic or other wired-network connections, as the latency inherent in cellular communications can't meet stringent standards set by Advance Transportation Controller (ATC), National Electrical Manufacturers Association (NEMA), CalTrans, and others for safety and conflict resolution.

By contrast, NoTraffic localizes all the safety-critical decision-making at the intersection, with a camera/radar sensor that can identify vehicles, pedestrians, and bikers observing each approach. These sensors are wired to a box inside the existing control cabinet that can also accept input signals from pressure loops or other existing infrastructure. The controller only requires AC power. It connects to the cloud via 4G LTE/5G, but this connection merely allows for sharing of data that constantly tailors the signal timing of nearby intersections. This is not nanosecond, fiber-optic-speed critical info. NoTraffic promises to instantly leapfrog legacy intersections to state-of-the-art intelligence, safety sensing, and connectivity.



Installation cost per intersection roughly equals the cost budgeted for maintaining and repairing today's inductive loops and camera intersections every five years, but the NoTraffic gear allegedly lasts longer and is upgradable over the air. This accounts for that claimed 70 percent cost savings.

NoTraffic's congestion-reduction claims don't require vehicle-to-infrastructure communications or Waze/Google/Apple Maps integration, but adding such features via over-the-air upgrades promises to further improve future traffic flow.

Hardening the system against *Italian Job*-like traffic system hacks is essential, so each control box is electrically isolated and firewalled. All input signals from the local sensors are fully encrypted. Ditto all cloud communications.

NoTraffic gear is up and running in Arizona, California, and on the East Coast, and the company plans to be in 41 markets by the end of 2021. Maricopa County has the greatest number of NoTraffic intersections, and projections indicate equipping all 4,000 signals in the area would save 7.8 centuries of wasted commuting time per year, valued at \$1.2 billion in economic impact. Reducing that much idling time would save 531,929 tons of CO<sub>2</sub> emissions—akin to taking 115,647 combustion vehicles off the road. The company targets jurisdictions covering 80 percent of the nation's 320,000 traffic signals, noting that converting the entire U.S. traffic system could reduce CO<sub>2</sub> by as much as removing 20 million combustion vehicles each year.

I fret that despite its obvious advantages, greedy municipalities might push to leverage NoTraffic cameras for red light enforcement, but Cooper noted NoTraffic is neither conceived of as nor enabled to be an enforcement tool. Let's hope the system proves equally hackproof to government “revenueurs” and gold thieves alike. ■

NoTraffic combines artificial intelligence, cameras, and sensors to dramatically reduce idling time at intersections.

NoTraffic could help reduce CO<sub>2</sub> by as much as removing 20 million gas cars.





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## Interview



## Seiji Watanabe

## Mitsubishi Head of Design

**T**he new 2022 Mitsubishi Outlander SUV has launched amid positive reviews, raising the prospect of a long but slow crawl back to relevancy for the Japanese automaker that's lost much of its luster in North America.

In 2016, Nissan rescued beleaguered Mitsubishi, buying a controlling stake and bringing it into the Nissan-Renault Alliance. We were told at the time that Mitsubishi would find its place as an SUV-centric brand that would share its AWD expertise and plug-in hybrid technology with the family. Mitsubishi products would then use shared Alliance architectures—the first example of which is the much-improved Outlander, which shares underpinnings with the Nissan Rogue.

We spent some time with Mitsubishi global design boss Seiji Watanabe. At the 2017 Tokyo auto show, Mitsubishi showed the e-Evolution concept, a crossover highlighting the company's future design direction. It served as a vanguard for the 2022 Outlander, which Watanabe says is the flagship, embodying a more confident design philosophy with a planted stance, sharper hexagonal lines, a raked windshield, and the “dynamic shield” for a grille.

## 2022 Mitsubishi Outlander Is First of a New Wave

The Outlander is just the “first of the next generation of authentic Mitsubishi [vehicles]” and the “frontrunner of our evolving design strategy,” Watanabe says. He started with the vehicle's proportions and worked from there to create a bolder Outlander. The SUV's more premium interior is also a sign of things to come and reflects the company's desire to elevate Mitsubishi above its current status as a value brand.

Still in the pipe is a redesigned version of the Outlander Sport, which is to share its platform with the Nissan Kicks, the Nissan Versa, and a new redo of Mitsubishi's Eclipse Cross compact crossover. Previous plans to introduce the new Outlander Sport next year and add an



**THE OUTLANDER IS THE “FIRST OF THE NEXT GENERATION OF AUTHENTIC MITSUBISHI VEHICLES,” SEIJI WATANABE SAYS.**

electric SUV may have been pushed back, but Watanabe says we will see an “updated electric vehicle” next year. He could be referring to the next-generation Outlander PHEV coming to the U.S.; there is a plug-in hybrid version of the Eclipse Cross in Japan, but it is not coming to this market. Mitsubishi's first post-Alliance electric car will be a micro or kei car for Japan. Mitsubishi has said it will expand its electrified lineup to half of its global sales by 2030.



2022 Outlander

## Mitsubishi Is More Than SUVs

Watanabe says Mitsubishi will not be an SUV-only brand—it has a compact pickup truck for other parts of the world and still sells the 78-hp Mirage here, in addition to assorted sizes of SUVs. But don't expect a return of the Eclipse, Evo, or a next-generation Mirage. And although dealers keep clamoring for a pickup, there are no immediate plans to spin a truck from the Nissan Frontier platform, built by Nissan in the U.S., which is the only way it would be feasible. (Watanabe wouldn't close the book entirely on a pickup, saying Mitsubishi is studying the possibility.) The Dodge Dakota-based Raider was the last pickup Mitsubishi offered in the U.S., but the company discontinued it in 2009.

The designer would not say if he is penning an SUV to revive the Montero name; his response to our inquiry: “You can imagine.” Executives in the past said the Montero will return, but today the prospects look bleak. Montero sales ceased in North America after the 2006 model year, and the global Pajero/Montero will be discontinued this year as part of downsizing thanks to the pandemic's effects on overall sales.

## Design Culture in the Nissan-Renault-Mitsubishi Alliance

Asked how design works within the Alliance, Watanabe says he talks with Nissan design chief Alfonso Albaisa, as well as Laurens van den Acker, the head of Renault design, about future products to ensure each brand keeps its unique strengths in terms of looks, technology, and performance. Such discussions occur only at the design-head level, he says, “to avoid a similar direction.” The Alliance wants sharing to reduce costs while ensuring each brand remains distinct. The 2022 Outlander has a different silhouette, cabin, body sides, and window angles than the Rogue. It is also wider and has larger, 20-inch wheels. But as much as the Outlander has taken a step in the right direction, Mitsubishi still has a big job ahead to prove it can deliver a compelling portfolio at whatever price tags its next products wear. **Alisa Priddle**



# Your Say...



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## The Big Test

Shame on you, *MotorTrend*, for not including the Chevy Malibu in your midsize sedan Big Test (May). GM is the largest U.S. automaker, and its Malibu is not worthy? I think your readers deserved a Malibu versus Honda Accord comparison.

**Dennis Brandt**

Ann Arbor, Michigan

The Big Test of midsize family sedans was good but left me with a few questions. The Chevy Malibu was missing from the test ... why? Malibus are heavily discounted and, if I can believe car-buying services, easily available for less than \$20,000. That huge price difference should count for something! The Malibu was all-new in 2016 and has been updated at least once since then. How would it compare to the other cars?

**Jeff Hulman**

via email

*If Chevy had as many Malibu buyers as we had "Where's the Malibu!?" letters, perhaps it'd still be building them. Alas, the current generation is the Malibu's last. And based on our most recent experiences with the car, it likely would have finished midpack at best. —Ed.*

In your Big Test of midsize sedans, you rank the Accord first and the Camry sixth (next to last). Since the Camry outsells the Accord by about 25 percent, I'm interested to hear your analysis of why this is. My theory: The Accord (and in fact much of the Honda line) appears to be designed by third-rate hacks with little concern for aesthetic appeal. Or perhaps your criteria are different from those of the average consumer. (Note that a certain independent consumer organization rates the Camry higher overall than the Accord.) I do not own either of these models, but I welcome your thoughts.

**Steve Biren**

New Castle, New York

*The short answer: A product selling well doesn't inherently mean it's good. McDonalds has sold billions of hamburgers, but you'd be hard-pressed to find someone who claims a Big Mac is the best burger they've tasted. And for what it's worth, Honda claims superiority if fleet sales are ignored. —Ed.*

## Manual Choices

I read Mac Morrison's article, "The Great Stick Shift Conundrum" (May) a couple of times. It brought to mind a line in the Rolling Stones song, "(I Can't Get No) Satisfaction": "He can't be a man 'cause he doesn't smoke the same cigarettes as me." It also brought to mind *MT*'s February 2020 comparison of the 2020 C8 Chevy Corvette and 2020 Porsche 911 Carrera S.

In Morrison's article, the 911 Carrera S with the seven-speed manual weighed 43 pounds less than the eight-speed dual-clutch Carrera S in your 2020 comparison. Both have the same 443 hp and 390 lb-ft of torque. The dual-clutch Porsche hit 60 mph in 2.9 seconds. The manual, with less weight and identical power, took 4.0 to 60. It makes me wonder, why wouldn't I go for the manual so I can get significantly less performance? I guess I'm not comfortable with the elitist manual folks thinking I'm less of a man.

**Mike Fleming**

San Antonio, Texas

## Reader on Location

This month, **Corrado Toxiri** of Midland Park, New Jersey, writes from a notable place: "After the strangest year of our lives, when we could not travel much with our favorite cars, it seems fitting to take a picture on location while taking the first step to get out of this madness: I'm here pictured at the vaccination megasite near the New York Giants' and Jets' stadium in East Rutherford, New Jersey, while in line to get my first shot. The latest *MotorTrend* is keeping me company in the hourlong wait. The first thing I'll do once I'm fully vaccinated? A road trip with my 2003 BMW E46 M3, of course!"

Mac Morrison has the *cajones* to stick it to the stick-shift junta. I have owned some of the most engaging three-pedal sports cars, including the original Acura NSX, the twin-turbo Mark IV Toyota Supra, and the Honda S2000. But those were the days when slow-shifting automatics had no clue what a spirited driver demanded. Times have changed; the manual is no longer the ideal way to transmit power to the road.

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# CHALLENGE ACCEPTED



WORDS DEREK POWELL  
PHOTOGRAPHY DCL PHOTO

To hear Rob Corddry tell it, his first day of shooting *Top Gear America* was almost his last. As he was hustling a decommissioned Police Interceptor through an abandoned neighborhood with the Stig hot on his tail, the reality of what he signed up for truly sank in.

"Oh, God. What have I gotten myself into?" Corddry says. A year later, he can still remember the thoughts running through his head: "I'm afraid of danger. I have a low tolerance for pain. I'm not a daredevil. What am I doing? There are so many ways I could die."

Watch this segment on Episode 5, and you see this interior monologue unfold in real time during the height of the chase. Full of fear, his eyes flick between the road and the rearview mirror—and finally glaze over in defeat as he's jostled from behind. He was convinced the Stig had smashed into him and at any second his car would roll or explode. Probably both.

In reality, Corddry's right rear wheel had kissed a curb, and the car hopped sideways. The Stig, though

looming close, was at a safe distance. But to the co-host, that point of impact served as a metaphor that reflected his state of mind. "I was beside myself," he says. "That first day, I remember just spending it sort of terrified. I embarrassed myself in the race. I was a DNF." He smacks the table with his hands for emphasis. "Did. Not. Finish." Taking stock of the situation, he wondered if somehow he was miscast as a daredevil alter ego.

As a young actor in New York City in the 1990s, Corddry, now 50, could never have anticipated his career would lead to this moment. In a town where public transit runs 24 hours a day and only 45 percent of households own a car, he didn't have an outlet to express his inherent automotive enthusiasm. Instead, he focused on chasing every audition and studying improv, bouncing from sidewalk to subway and back again. Even his wife, Sandra, who he refers to as his "most trusted adviser," wasn't privy to her man's vehicular interests. Their car, a hand-me-down 1994 Toyota Corolla, wasn't exactly a sports car. At least it had a five-speed manual.

Looking back even further, it's understandable the car gene took so long to germinate. Corddry's first car was a 1975 Ford Pinto, unimpressive by any measure, save for the fact it contains memories as only a first car can convey. "It had an oil leak so consistent it burned a hole in my parents' driveway," he says. "It was a quirky, crappy car, white with woodgrain, that I loved with all my heart, even though I had to lift my legs going over puddles because the floor was rusted out. No cars smell like ones from the '70s, man. I can smell it now, and it's glorious."

Moving to Los Angeles was the catalyst that rekindled the actor's passion for cars. As his interest gained momentum, he'd let it drop in interviews that he was an avowed car guy—even if it was just to score fast wheels he could drive on the weekends. His wife caught on,

**Rob On: Corddry, at right with Bovingdon and Shepard, relishes opportunities to rock expectations by considering angles beyond raw horsepower and on-paper specs.**





# HOW DID ROB CORDDRY MAKE THE JOURNEY FROM FUNNYMAN TO AUTOMOTIVE HOOLIGAN? WE GO BEHIND THE SCENES.







too, as she noticed he was prioritizing real estate searches by the number of garage spaces a house had.

Then came the call to join the cast of *Top Gear America*. Although he couldn't say yes fast enough, Corddry felt it prudent to first set the record straight. "I said, 'You guys know I'm a car *enthusiast*, right?' And they were like, 'We know, we know. We're not casting you for that.'" Unlike fellow co-hosts Dax Shepard and Jethro Bovingdon, whose own passions were amplified by early hands-on indoctrination in the automotive industry and who have racing backgrounds, Corddry's experience makes him the everyman who represents the viewer. At least, that's what he thought.

On this show, things rarely go right—sometimes by design, more often by happenstance. If there's any doubt, the complicated relationship you see between the producers and hosts is absolutely real. Scenarios are devised in a virtual writer's room to highlight the hosts' strengths

and to exploit their weaknesses. But what results on the day of a shoot ultimately depends on the hosts and how they take on the challenge.

In the very same episode where fear almost got the better of him, fortune smiled on Corddry in the following challenge, which consisted of a drag race across a dry lakebed. True to character, Shepard added a nitrous system to his Cadillac Fleetwood Brougham, while Bovingdon fashioned an aero tail for his Mini Cooper. Corddry ripped out the police car's interior and sawed off the exhaust. The lighter, louder Crown Vic cruised to victory against the nitrous-failed Cadillac and wind-cheating Mini.

For Corddry, the win was vindicating—and an exponential victory in the literal sense. "A little behind-the-scenes secret is that you're seeing *one* race on a finished show," he says. "But of course, we did that race four or five times so they could get different camera angles on it. And I won *every single one of those races*. So I walked

out of there 5 feet taller. I drove home from the dry lakebed not able to fit in my car, I felt so tall." It gave him the capacity to appreciate what he's capable of—and be comfortable with what he's not.

That's when the wheels started turning in his head. He realized the challenges were anybody's game. "The one thing I could pride myself on in Season 1 was that while Dax and Jethro are both way more knowledgeable than I am about cars—encyclopedically—I knew I had to do work." Instead of just winging it, he could gain the upper hand through methodical thinking and strategic planning. Here, it's not just about choosing the best car but also about selecting the right car for the challenge.

It's this kind of tightrope thinking that appeals to Corddry's tactical nature, because even the wrong choice can turn out to be the right car. "We are barraged by choices of cars we can buy for each challenge. [Senior producer] David Silberman sends us cars and says, 'How about this one? How about that one?'"

Corddry even fondly remembers the car that almost stranded him. "I made the mistake of choosing one of his cars, and it was a Saab [900 Turbo]. That was the worst car I've chosen for *Top Gear* so far. I always was confident in the fact I had chosen the best car because I worked for it. But when I didn't, I was in the position of 'Oh, now I'm *that* guy on *TGA*. The guy who has the car that's broken.' And I found it kind of fun to have to deal with all that nonsense."

In that moment, Corddry's approach gives way to his improv training. His time in New York may not have imbued him with an aptitude for smoky burnouts, but it provided him a quick, malleable wit that reaps dividends on camera. When a mission starts to go sideways, he mentally steers in the direction of the



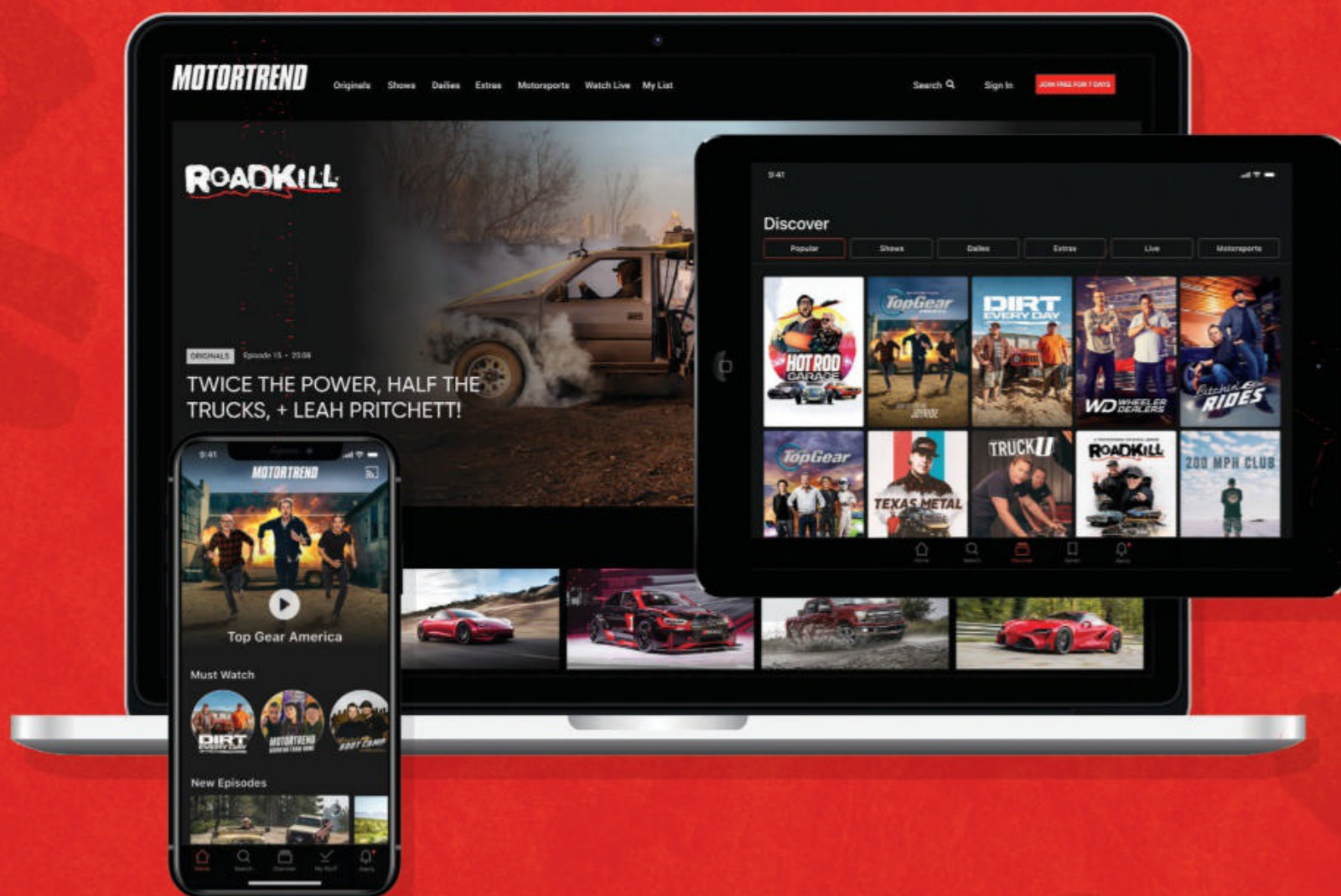
Pure fun is one of the show's core tenets, as always, and there might be nothing more fun than forcing a competitor (Bovingdon, in this case) to suck your wake.





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ON THIS SHOW, THINGS RARELY GO RIGHT—SOMETIMES BY DESIGN, MORE OFTEN BY HAPPENSTANCE.



skid, changing course on the fly—verbally as well as physically.

Watching him on set, you get a sense of this duality at work. Once an episode idea is approved and his car is selected, Corddry takes to absorbing every detail so he can truly take ownership of his opinions. If the challenge involves a race of some sort, he'll focus on how he can drive smarter, not necessarily faster. When it was clear his ailing Saab wouldn't stand a chance on the track against Shepard's and Bovingdon's healthier machines, he opted to take the road less traveled—by veering off pavement and finding a shortcut through the dirt to reach the finish first.

Corddry attributes that decision to the version of him “who’s ready to chuck all of his plans if something better or even *different* happens. And that, I think, is the nature of *Top Gear America*. We always go in there with one idea, and we always come out with a completely different thing.”

When it comes to car reviews, this methodical-meets-improv technique adopts a new angle. Absent of challenges and co-hosts, Corddry eschews tire-melting burnouts and full-throttle shenanigans for a decidedly more cerebral approach. Immersing himself in tech specs beforehand creates the foundation of the story, but what he really wants to know is what the car has to say. If it sounds like forging this relationship between man and



machine is a little unorthodox, remember he is still technically the everyman guy. At least, for now. There’s no question that with every passing episode he’s a little quicker off the line, a little more experienced behind the wheel.

Performing this about-face has been empowering for Corddry, but it’s also presented a new fear. “My biggest worry is that I’m getting better. Markedly so,” he says. “I still don’t have as much practice as the other two, but the risk now is that

I actually get good at all of this stuff. I get better than what they cast!”

Boasting more authority is a good problem to have. It also means he’ll be able to take on meatier challenges. What does that look like? Corddry thinks for a minute before he responds. “Big rigs. Big rigs.” He proceeds to say it five more times in a row. The glee in his voice is unmistakable. “You can make that happen, right? I’ll be sad if you can’t.” ■



Point your smartphone's camera at this QR code to see more adventures with Rob Corddry and *Top Gear America* co-hosts Dax Shepard and Jethro Bovingdon, along with 8,000+ episodes of other hit car shows, only on the MotorTrend app. Plus, you can sign up for a weeklong free trial. You're welcome.





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# STREET SMART





**T**here are so many things I wish I could do.

I'm not talking about a COVID lockdown to-do list. This isn't about baking a certain variety of bread no one liked until boredom drove them insane. And I'm not talking about finally guilt-reading those classic novels I faked my way through in college. Faulkner is overrated anyway, let it go.

I'm talking about my exponentially expanding thirst for knowledge relative to my atrophying, middle-aged capacity to learn. It's one of life's cruelest jokes: When we finally *want* to learn, we realize our brains have retired early and moved to Florida. They play mahjong with the girls on Fridays and do the *USA Today*

crossword each morning so they can "stay sharp."

I want to do simple math without a calculator. I want to speak fluent Spanish. I want to skate like an NHL player. I want to play sitar like Ravi Shankar (or at least like George Harrison). But there's one skill sitting firmly in first place on my leaderboard of knowledge.

I want to be an expert driver. I'm not talking about nailing a tight parallel park; that's something every licensed driver should have mastered. If you haven't, get off the damn road.

I'm talking about the kind of driving I'm often asked to do as a host of *Top Gear America*, about having exceptional car control and courage as well as the illusory superiority complex common in all world-class drivers. I yearn to feel as confident as my *Top Gear America* co-hosts Jethro and Dax when they drift a Lamborghini Huracán around a corner at speeds of bonkers mph.

I'm unusually poised to achieve this goal having had at least enough natural ability to land the job on *TGA*. The only other thing I have in my favor is an obsessive focus. When I'm set on doing something, I can be—and please don't pardon the fantastic pun—very driven (thank you, I'm a professional comedian).

So, I Zoomed the nerds at *MotorTrend* and lorded my TV and film stardom over them until they rented me a track at



WORDS ROB CORDDRY  
PHOTOGRAPHY POVI PULLINEN

## RACER RANDY POBST TURNS THE ART OF DRIVING INTO ONE OF MY MOST MEMORABLE LEARNING EXPERIENCES



Sideways heroics look so damn easy in movies, but they take time, commitment, and confidence to execute.



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Willow Springs International Raceway. While they politely tried to remind me they are technically my bosses, I scratched my chin with one of my many Emmys and agreed to write a Pulitzer Prize-worthy article for their magazine about my experience. What a treat for them! They were so excited, they threw in some cars and asked resident racing champion and performance driving instructor Randy Pobst to lend a hand.

The day was set, and my journey to driving expertise had begun, but not without one significant emotional hurdle: I'm not good with teachers. I resent needing them. I want to pick up a guitar and know how to play "Sultans of Swing" (or at least a George Harrison song). I yearn to be a savant. It's an ugly corner of my psyche that speaks to a general impatience and restlessness I wish I had a name for. For now, we'll call this

ugliness "Bob." Rob is a nice guy ... but Bob is an asshole.

When I do succumb to the agony of being taught, I yearn for my teacher to utter a single word that unlocks some chest of hidden skill—and I'll be damned if it didn't come close to being just that. Pobst was as close to that kind of teacher as I've ever had. My Mr. Miyagi. On wheels.

Randy thought the 2021 Mazda 3 2.5 Turbo was a good car to use for my timed laps; it handles well with all-wheel drive but also isn't a diabolical handful at speed. After setting a reference lap time of 2 minutes, 4.5 seconds around the TGA test track on the Streets of Willow circuit, I was ready for my first lesson: a simple out-of-car demo. We expected rain, a bad thing on any track. And it's even worse if your first lesson is an out-of-car demo. Luckily the skies were clear, save for the cumulus clouds formed and reformed

by the strong desert wind. All I had to complain about was the 45-degree temp, frigid by California standards.

Outside and shivering in the wind, Bob was impatient with the *MotorTrend* behind-the-scenes crew making us do on-camera snippets before Randy's first lesson. Randy called this chapter "Simple Tap Dancing" (another thing I'd love to be able to do). He introduced it as a way to understand the role weight plays while driving at a high-performance level. Bob threatened to appear and cry about all the books he'd read on the physics of weight while driving. But Rob had to admit I've really only half-understood it all. There's nothing like a few mind-numbing diagrams on body roll to put you right to sleep.

Randy told me to extend my right foot, tap it to the left, then tap it to the right. Then he told me to put all my weight



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on that foot and replicate the action. I couldn't, of course, and Randy dropped the first of two Miyagi-bombs: *Your weight is the brakes, and your foot is your traction.*

Boom. He's got me now. I get this guy. Front tires have better traction when they're weighted down. I get it. Then Randy asked: "What steers the car?"

Easy. "The steering wheel!"

Randy paused. "Sure, but whose responsibility is it to steer the car?"

"Oh. It's me! I steer the car."

Randy spoke next as if to a third grader, a position to which I had been effectively reduced.

"No, the front tires. The front tires turn the car. Right?"

"Riiiiiiiiiiiiight!"

Two things became clear:

1. I'm a dumbass.

2. To achieve the grip needed to turn a car at high speed, you must first apply the brakes.

Again, that's something I knew intellectually. But sometimes you have to have your adult pride stripped in order to really learn the simplest of things in a practical sense. That's why you set a braking point before a corner and continue braking into it. Now I was no longer going through the motions, and I was excited for my next lesson: the skidpad.

On the pad with Randy driving—we switched to the rear-wheel-drive 2020 BMW M2 CS for this exercise—he treated me to a balletic display of controlled skidding and drifting. His skill on the pad was glorious. I was elated, but Bob was pissed: *I need to be able to do this just as well—or at least as well as George Harrison, who I assume was an awesome driver.*

But when I switched places with Randy, it was like I hadn't learned a thing, spinning the car around like a drunk modern dancer. I had some fleeting successes, but it was mostly failure, prompting Randy's second and literal Miyagi-ism: "Wax on,

wax off." Meaning I'd have to keep doing this over and over to gain proficiency. Rob got it. Bob did not.

We spent the rest of the day on the track, with Randy repeating a mantra until it became ingrained in my practice: "Look where you want to go. If you want to turn left, *look left.*"

After a few hours, during which we drove the track in the more lively, more capable BMW, I was exhausted. Randy described the experience as a "firehose of instruction" and, to my great pride, said I was a natural. All that remained was for me to do my final timed lap in the Mazda to see how far I had come in a single afternoon. Randy was confident I would shave 10 seconds off that 2:04.5 time.

But then those beautiful cumulus clouds finally broke open and soaked not only the tarmac with rain and hail but also doused Randy's confidence: "Maybe 5 seconds."

I did some practice laps on the sodden track. It was a class on finding and nudging the edges of the Mazda's stability control. I found myself drifting the entire course, repeating Randy's mantra until I was ready for my final lap.

Randy and I were bullish as I crossed the finish line. He suggested I do another, but I was completely drained. I've described this brand of exhaustion to

other drivers, and they nod knowingly, eyes wide, having felt the physical and emotional toll of working hard behind a wheel. Randy didn't press further when I said something along the lines of, "No effing way."

The nerds manning the timers were as cheerful as a middle finger. They conferred privately, their expressions lacking more than just smiles. Oh, no. This had been all for naught! I would continue to lose to Dax and Jethro, and I would disgrace Randy Miyagi.

I was Googling for cliffs I could drive my own 911 off of, no longer feeling like I deserved the car, when they handed me a printout. A *graph*. Graphs make me want to hug my mother and cry. I



See page 68 to read more about the incredible BMW M2 CS, as it comes to blows with Porsche's 718 Cayman GT4.



SOMETIMES YOU HAVE TO HAVE YOUR PRIDE STRIPPED TO REALLY LEARN THINGS.







## Randy Pobst's Driving Tips

**L**earning to drive on the limit is indeed much like drinking from a firehose. There is a lot to ingest, so I like to keep it simple and basic during early lessons.

Weight management is a driver's primary job. When you transfer weight to a tire, its grip improves, just as we demonstrated with our foot. Slide lightly, no grip; lean on it, and it sticks well. The same is true for your tires. When you use the throttle and brake pedals, you transfer weight: Slow down, and it moves forward; speed up, and it moves rearward. When weight moves rearward, the front end lightens, and the car will not steer as well. When you brake and put more weight on the front tires, it steers better.

As you enter a corner, continue slowing down—either with brake pressure or by coming off the throttle—until the car is aimed to exit the corner, then apply power. Always be aware, tiny changes with brake or throttle make a big difference to where a car goes. Make sure you're smooth as you release the brakes and add power.

As Rob learned during our lessons, you go where you look. When entering corners,

look to the inside edge of the road ahead, then through the corner. Due to humans' natural hand-eye coordination, looking ahead into a turn will cause our hands and feet to tend to do the right thing.

If you ever lose control and spin, jam on the brakes and hold the pedal down until you stop. This is your safest move, as it stops the car as quickly as possible, and it keeps your foot off the throttle. If you're driving a car with a manual transmission, the rule is: When you spin, both feet "in." Meaning, push the brake and clutch pedals, and keep them pinned until you come to a stop.

Of course, just because a car's rear begins to slide doesn't mean a spin is the inevitable outcome. To correct a slide, use the steering wheel and not the pedals to recover, and always look ahead to where you want to go. Do not look where the car is headed; your vision and an ability to think ahead into a corner is critical. Remember: Our natural survival instincts make us look at what we are afraid we will hit, so always keep your eyes on where you want to be. **Randy Pobst**



was pretending to study it, trying to find anything resembling a time when I heard, "Wow! Seven seconds!"

It was Randy, who had appeared at my shoulder. Of course he's good at graphs. He pointed at some numbers: 1:57.55. I had shaved 7 whole seconds off my time! I suddenly felt like a driver. I suddenly felt as confident as Jethro and Dax when they drift that Huracán.

In retrospect, with a few weeks separating me from that day, I prefer to think about it like this: It was Randy Pobst, driving professor emeritus, who found those 7 seconds. I'm not usually able to listen to teachers, but with Randy, listening was secondary. With Randy, I was *doing*. With Randy, I was different, and Bob was a mere whisper. I now appreciated that magic only happens if you keep at it, if you always practice. And because of Randy, I feel even luckier and more grateful to have *TGA*, where I can practice almost every day.

But mostly, all I really have to do is look where I want to go—and now I *know* I'll get there. ■



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**E**ditor's Note: Rob here, and I'm excited to present this peek behind the curtain, a rare opportunity for MotorTrend readers to understand a bit about how the sausage really gets driven. Please send thank-you cards to my publicist, Sam.

Per normal protocol, an editor gives a writer notes aimed at improving a story. A second draft is written, and the process repeats until that word-turd transforms into a turd-butterfly, flying on wings of gracefully plotted ideas and sentences. But there exists a class of elite magazine writers, car journalists in our case, who have evolved beyond this rubric, those with the experience and skill to dazzle in their very first draft. Those with the guts to use the word rubric, even if somewhat improperly. These are the untouchables, and they are a feared bunch, free to operate beyond an editor's busy red pen.

His British modesty would never permit him to agree, but my Top Gear America co-host, Jethro Bovingdon, is of those vaunted few, a genuine one-percenter. With rare, naturally aspirated air filling his lungs, Jethro writes real stories about cars. The kinds of stories that tickle our prehistoric lizard brains and satisfy our predetermined need to read about heroes on a journey.

And guess what? As MotorTrend's guest editor, I'm Jethro's boss! So, let's get down to the business of abusing some power and redline the ever-loving crap out of this privileged scribe. Not only will you have access to what would be a typical set of first draft notes, but Jethro himself might have the pleasure of reliving his salad days when he was a young apprentice at Evo magazine in the U.K., getting coffee and waiting for some keys to be tossed his way. But probably not. I hope you enjoy this exercise as much as he won't. —Ed.



# NOTHIN' BUT

WORDS JETHRO BOVINGDON EDITED BY ROB CORDDRY PHOTOGRAPHY POVI PULLINEN



**He's Right****By Jethro Bovingdon**

It's tragic in some ways, but the simple truth is, I think a lot about cars: I scrutinise specs, comparing the newest model to established rivals in my head; I fret about ever-spiraling mass and how technology is being thrown at problems that don't really exist just because, well, who knows? Much of my time is spent looking at classified ads for cars I have zero hope of affording. And when I drive a new car, the way it steers, rides, the nuances of its balance and traction and gearshift all get referenced against an accrued knowledge of thousands of vehicles I've driven and

reviewed on roads and racetracks. Then I try to make sense of all that info and turn it into a compelling story that really conveys the joy (or otherwise) of the experience.

*Great intro, Jethro. Really super-duper! (Effective notes should start with a compliment. Then let the hellfire rain down.) Firstly, let's get out ahead of what I predict will be a big problem in this piece: I don't have time to translate odd Euro-spelling. I'm about to start work on a Porsche 911 RSR Lego set that has, so far, not built itself. Pro tip: If you set your spellcheck to*

**GO BEHIND THE SCENES** See more of our fun day at Willow Springs by scanning this QR code with your smartphone and checking out our Instagram Story highlights.



# A GOOD TIME

TWO TYPE R'S, AND THE WAY  
THINGS ARE DONE AROUND HERE



*“location-based,” you’ll discover there’s a good ol’ American Z in scrutiniZe. And that’s zee, not zed. OK, no more spelling notes, pal. You’re doing great.—Ed.*

My colleague and esteemed guest editor, Robert Ernest Montgomery Corddry III, sends me links to various cars he’s found at all hours of the day, too. He has a similar affliction. However, it strikes me pretty quickly that his ‘process’ is a lot simpler than mine: He judges a car purely on how it makes him feel. Pretty smart. Today is one of those days where we have real, physical cars to play with rather than simply pinging classified ads between ourselves, and I sense Rob is in a very good place. After three corners in an immaculate 2001 Acura Integra Type R straight out of Honda’s California museum collection, his pithy, casually delivered conclusion is about as perfect as one I’d spend hours deliberating over and many thousands of words to reach. “This is a great car!” he grins. You know what? He’s right. It’s bloody fantastic.

*I was so flattered you were charmed by my gurulike simplicity that I read this section to my therapist to combat her constant refrain that I’m in a very bad place. But she got totally obsessed with your single quotation marks around “process.” “It’s an impressively subtle burn that only an accomplished wordsmith could pull off. This guy is being edited by you?” She went on to say that while the definition of “pithy” isn’t as ugly as the word sounds “in the context of the rest of the paragraph, well...” Then she laughed for a long time and asked if you were single.*

*I see what’s happening here. Someone tipped you off, so you’re baiting me. Sneaky stuff, but as your superior, I’m taking the high road. I’m even thinking about taking the article’s title from this very paragraph.—Ed.*

You probably don’t need to know much more, but the Integra is also a fantastic way to explore some of those things I obsess about and to chart the progress of Honda’s Type R performance brand. I know it’s badged Acura, but as a Brit, the Integra (and the NSX, folks) is and always will be a Honda. Parked beside the very latest 2021 Civic Type R Limited Edition in matching Pheonix Yellow here at windy, sun-bleached, and gently dilapidated Willow Springs Raceway, it looks almost toylike, so slim and petite are its crisp, simple lines and so tiny its seven-spoke 15-inch wheels. It looks lithe and lean where the new Type R Limited Edition is all muscle and swagger.

*I said I wouldn’t do it again, but I know you put a praemium on writing oeconomically, so it’s an aenigma to me why you and your countrymen insist on worshipping at the altar of the Ancient Greek Diphthong. It’s spelled “Phoenix!” I’ll admit, this one made me so mad, I actually punched my own fist. Yeah, I balled up both of my hands and violently swung one into the other. Careful, Jethro, this is America, we are a litigious people. I could have you arrested and charged with second-degree fist-assault.*

*OK, done for real. You dodged a monologue about Acura/Honda badging, but it won’t happen again! No more spelling talk.—Ed.*

Five corners in, and Rob is still beaming. The idea for today was to give Corddry a chance to do some real “car journalism” away from the pressures of the *Top Gear America* cameras and the ever-present likelihood of Dax crashing into him just for giggles. I’m here to stop him listening to Howard Stern on the radio for seven minutes and make him think about steering response and agility and suchlike. But Rob is right: You don’t need to think about those things in cars as infectiously



enthusiastic as the Integra. Just *feel* the joy. “Oh man,” he says. “It feels so, so light. It’s really unbelievable. And the steering is perfect. Wow.” The Integra Type R makes everybody a car journalist, it seems, and it’s really cool to see a car really get under the skin of somebody else from the passenger seat. What’s he going to say next? Something about fluid damping or throttle adjustability? I feel so proud. Rob shoots me a serious look. Here we go. “I have a hard out at 4 p.m.,” he says. Hollywood people, eh?

*I HAD A THING! What, I’m supposed to cancel a Zoom with the assistant to one of CBS’ junior junior vice presidents? “Sorry bud, can’t make it. Jethro wanted me to take a sixth corner.” No way, pal. Because I’m not a Hollywood person... I’m a Hollywood gentleman. Bababooney!*

*Otherwise, Dax does love crashing into people, huh? At first it scared me, but I’ve grown used to hearing the sound of metal and fiberglass bending and breaking, followed by barking, Midwestern laughter.*

*Oh! And re: the Integra, I forgot to mention I liked the fluid damping adjustables or whatever. And the throttle stuff you said. Top notch.—Ed.*





ALTHOUGH THE ACURA INTEGRA AND HONDA CIVIC SHARE THE TYPE R TAG, THE PHILOSOPHY SHIFT IS SEEMINGLY VAST.



What hasn't been said about these cars? A lot, judged by how much we kept talking about them.

The Integra and Civic are separated by nearly a quarter century, more than 600 pounds, and although they share the Type R tag, the philosophy shift from the normally aspirated, torque-light screamer in the coupe and the boosted 2.0-litre in the hottest hatch on planet Earth is seemingly vast. The Integra was all about extracting maximum revs and the purity of an atmospheric motor. That's why its 1.8-litre four-cylinder engine has hand-polished ports, lightweight molybdenum-coated pistons, a trick crank to resist bend-fatigue at high rpm, and, of course, Honda's VTEC variable valve timing.

Sounds great ... but the numbers are very vintage set against 2021 expectations. The Integra Type R makes 195 horsepower at 8,000 rpm and, wait for it, 130 lb-ft at 7,300 rpm. Luckily, it weighs just 2,560 pounds, and back in the day we got it to 60 mph in 7.0 seconds and through the quarter mile in 15.3 seconds at 93.4 mph.

*The congregation will kneel for a reading from the writer's bible ...*

*"A sentence should contain no unnecessary words ... [like] a machine no unnecessary parts."—paraphrased from Strunk & White's The Elements of Style*

*You must be messing with me, but I can't tell because I'm hitting deep REM sleep before I get to "hand-polished ports." If I somehow make it to "VTEC variable valve timing," it's because my mind has wandered somewhere more fun. I do, however, get a kick out of you following "wait for it" with "130 lb-ft at 7,300 rpm." What a reveal. You're the M. Knight ShyamaYAWN of car journalism!*

*But I'm sure you're having fun with me, so I get pleasure only from knowing you enjoyed writing this literary schematic as much as I enjoyed reading it.*

*Sorry, fell asleep again.—Ed*







This is no ordinary Civic Type R. The Limited Edition is recognisable [stop] by that colour [please stop], but the real magic is harder to spot and proves how incremental gains add up pretty fast. Weight is the enemy, so sound deadening has been stripped, the rear cargo cover is gone, and the rear wiper has been junked, too. I guess the idea is that what's behind you isn't coming past anytime soon. More crucial, though, is the reduction in unsprung weight and rotational inertia with forged BBS wheels (a handy 4.5 pounds lighter per corner) and gummy Michelin Pilot Sport Cup 2 tyres [more on this in a moment] that save a further 4 pounds in total compared to the standard car's Continentals. The suspension and steering have been retuned to suit, and to make the Type R even more of a focussed [begging you to stop] drivers' car. Just 600 will come to the U.S., priced at \$44,990.

*Nice try, pal, but I found this paragraph compelling! In a world of baffling re-engineering for its own sake, and for all the ink spilled over redesigned quarter panels, I'm all in when a company commits to the risky patience of incremental gains. A little here, a little there. Sound deadening? Bye. You'll want to hear this car, anyway. I love this stuff, and you should know that! Oh wait ... OK. I see. You do know that. Right. Got me again, Bovington. I do not appreciate being putty in your dry, British hands.—Ed.*

Rob and I have some Civic Type R history already. In the first season of *Top Gear America* [new episodes are streaming now on the *MotorTrend* app, just sayin'], we pitted the standard car against the rabid little Hyundai Veloster N, and we loved them both. Some people will never quite get the concept of a front-drive performance car, but I love how aggressive they are, the speed they can generate, and the sharpness you have to build into the chassis to fend off understeer. Nothing short of, say, a 911 GT3 feels as agile as a really dialled-in hot hatch.

*No notes. Except to say I can already spot the word “dialled” again in the paragraph below. Come on, that can't be real! I'd look it up, but your spelling exhausts me. I have no fight left.—Ed.*

For my good friend and colleague, this truly dialled-in LE is close to a religious experience. “What hasn't been said about the Type R?” Rob says in my direction after a couple of laps. Before I can answer, he continues. He does this a lot. I guess he's used to rhetorical questions from his Shakespeare days and has adopted them into everyday life. “That it's so good it's almost unfair to label it a hot hatch?” Nope, I believe I've said that, Rob. About five minutes ago. You can't just parrot back my words.

*Oh, but I can! I can, I do, and I will! Understand this, JB ... I am an idea*

*vampire, and you made a big mistake inviting me in. Get used to it because I get stronger feeding on your every thought, and, I quote the bard himself, “You are a rare parrot-teacher.”—Ed.*

“OK, well, what about that I had dreams about it where I was just shifting its oh-so-satisfying gearbox (but it was a dream and I was in my house, which, I guess, is a six-speed)?” Nobody has said that, I assure him. He cracks a boyish smile, looks wistfully over the scene of chewed-up racetrack before him, howling wind whipping fine sand into his face, begins to apply lip balm, and then starts to describe other lurid dreams. I back slowly away and jump in the Type R Limited Edition for a few laps of my own. This is one reverie that can stay personal.

*True. I was shifting my three-bedroom, six-speed home. One note: It reads here like you DON'T enjoy listening to my dreams, which I'm sure is not the case. Speaking of which, I've got a few sexy corks for you next time we're together. In a car. That you can't leave.—Ed.*

The Integra is still fresh in my memory, and what an experience it is, even today. The 1.8-litre [I let this go earlier, delusional in my hope you'd figure it out on your own: It's spelled L-I-T-E-R!] engine may lack power down low, but the way it rips to the redline, induction roar tearing great chunks out of the cold air and filling the sparse cabin, more than makes up for it. Very few small, four-cylinder engines feel “exotic,” but this B18C unit is pure race car and defines the Integra's character. Combined with one of the best gearboxes ever fitted to a road car, it pulls you deep into the process of extracting everything this ball of energy has to offer. It's not a car for lazy drivers, but it rewards every bit of effort and energy with perfect response.

And, oh my, the balance! The Integra generates so much grip from its tiny little Yokohamas, but it's what happens as that purchase begins to ebb away that's truly special. You can feel the steering lighten as the fronts start to struggle. If it's on corner exit, simply keep the faith and the throttle pinned: The helical diff will lock up and pull the nose back into line and onto the next straight. If it's midcorner,

then it's playtime. Lift the throttle, feel the nose tuck and the rear axle start to swing wide. If you've judged the speed correctly, the Type R settles into a gorgeous, almost slow-mo







four-wheel drift. If you're way too hot, it slips into oversteer but feels easily recoverable. There's instant response and sharpness, but the edges seem to be so smooth and gentle that the Integra will never bite. It's magical.

*You win. (This was a contest, you knew that, right?) Those last two paragraphs were a beautiful piece of writing. I tried to find something wrong but couldn't see beyond my face-busting smile. I'm left only with the joy of reading expertly crafted prose. Warning: I will parrot some of this back to you in the future. My only hope is that you might enjoy hearing it again.—Ed.*

The Civic will bite. Hard. On cold tyres [I actually like this spelling. It's absurd, which is my bread and butter] it's about as stable as a Hellcat on a frozen lake. The front never errs, but the rear tyres take an age to get heat into them, and until they do, it wants to swap ends with alarming speed. It's a side effect of the lengths Honda took to ensure this thing turns right when you ask it. There's just too much front-end response for the rear to keep up. However, within a couple of laps things settle down and the Limited Edition is sublime. It feels quicker and sharper than the standard car,

it's more neutral through turns fast and slow, and the engine really comes alive. Those lightweight wheels might sound like a gimmick, but the effect they have is wholly tangible. The engine revs so quickly now, and the reduced sound deadening heightens the sense of manic commitment that fizzles through the entire car. It's a more physical, bruising experience than the tiptoe Integra but no less impressive. What a little monster!

*Small thing: I'd cut the word "right" from "ensure this thing turns right when you ask it." You know, because "right" might be confusing? Because, like, it's also a direction? Yeah, so ...*

*Screw it, what the hell was I thinking? Guest editor?! It sounded so easy! Jerk. Hey Jethro, I'm in kind of a bad place right now, will you hold on a quick sec while I go hug my kids and weep?—Ed.*

I'm smitten after three laps. After 10, I guess I should come into the pits—after 15 people start frantically waving me back to base. I could drive the LE until the fuel runs out or the tyres pop. It's a fantastic performance car. Rob (and, um, I) was right, this thing almost defies the "hot hatch" label. It's so well engineered,

so beautifully executed, and so damn exciting that it can stand toe to toe with cars costing many times as much and not "cursed" with wrong-wheel drive. The Limited Edition really ups the ante, too. If you're thinking of a Civic Type R, this is the Type R you need. Rob greets me when I return. "What do you think?" he asks. I reply, "This is a great car!" It's as simple as that.

*What a delight. I used to wonder if automotive journalism was just a Mad Libs cheat, an industry-approved template with an accompanying list of unlikely adjectives (meaty, chunky, buttery). A lot of car journalism in less capable hands reads like marketing copy for soup. But Jethro transcends the familiar tropes and simply tells us how he feels about a car without pandering to companies or worrying about how it's normally done. That's why I asked him to write this article under the ridiculous pretense that I would "note" it. I knew, if nothing else, I would enjoy reading it, and I was not disappointed.*

*And frankly, if I hadn't begged him to do it, I'd have to write the damn thing myself, and I know zed about lightweight molybdenum-coated pistons. Also, I have a hard out: There's this thing I can NOT cancel ... —Ed. ■*







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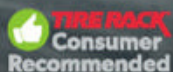
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# WITHOUT ITS ROADSTER, PORSCHE MIGHT NOT EXIST TODAY

## "Putting Porsche in the Pink."

**T**hat was the headline on a *New York Times* story published on January 20, 1996, detailing the German marque's effort to turn around its finances and reinvent the way it had built cars for more than 40 years. As the newspaper pointed out, the company that produced must-have products for the upwardly mobile during the cartoonishly decadent '80s—in 1986, North American sales exceeded 30,000 units—had reached its last gasp. Antiquated, inefficient manufacturing processes collided head-on with an economic recession and a misjudged, aging product range to result in just 3,713 sales in the same region in 1993. Threatened with bankruptcy, Porsche had to change.

As the 968 and 928—the latter originally and inconceivably meant to replace the 911—disappeared from showrooms for good, there was a vacuum of new products as the company set about its transition. Yet even before the 993-series 911 arrived in early 1994 to barely keep the lights on, then-new CEO Wendelin Wiedeking called in automotive engineers and manufacturing gurus from Japan, who promptly turned Porsche production on its flywheel. "Just in time" manufacturing practices replaced an antiquated process whereby factory shelves were stacked with surplus parts. Gone were the inefficient manufacturing complexities that long qualified as—perhaps even defined—German "precision."

1996 might have been the year Porsche's self-cast lifeline became apparent to contemporary observers with a keen eye for business

Early name ideas included "Expo" and "Apex." But when designer Steve Murrkett combined "boxer" and "roadster," the name stuck.



# BOXSTER

# at 25



WORDS MAC MORRISON  
PHOTOGRAPHY BRANDON LIM



**TIMELESS MACHINE**  
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The original Boxster concept didn't actually run, but it's one of the best show cars of all time.

practices. But what occurred three years earlier, smack in front of the brand's customers and enthusiasts, became a foundational pillar of today's strong and healthy Porsche.

Behind the scenes, the near-term product plan called for an all-new water-cooled 911, the 996, to go on sale in the U.S. in 1998. It also called for another car: a cheaper two-seat convertible slated to arrive a year earlier and to share a significant amount of parts and panels—a practice learned from the Japanese consultants—with the flagship coupe. When Porsche pulled the cover off the little silver roadster in January 1993 at the Detroit auto show, the first tangible evidence of a new era was on full display.

The Boxster stole the show, and unlike a majority of concept cars that appear from thin air and vanish into history just as quickly, the two-seater was already greenlit for the assembly line. But the concept was actually created separately from and in parallel with the program developing a future production roadster.

"We started the show car at the end of '91," says Grant Larson, today the director of special projects for Porsche's design team. As a young designer, he shot to stardom in Porsche circles after drawing

the concept car under the eye of design boss Harm Lagaay. "While that was looking pretty good, I had my version of the production car going. And it was quite a bit different. The show car, it [was] just out there to showcase the idea.

"While we're finishing the show car, the production car was in its infancy stages," he continues. "The good thing about the concept is that it forced the production development [team] to look a little bit deeper at getting [similarly] tight proportions. They kind of fed off of each other." As the process progressed, the concept ultimately emerged as the best of several studies to eventually become the production car tagged internally as "986."

It's easy to see why, beyond its objectively stunning lines: The 964-generation 911 and its 993 successor still used the famous sports car's original 30-year-old proportions, and Porsche's front-engine cars of the time weren't gorgeous and failed to draw on the company's memorable design heritage. The Boxster concept achieved the elusive product-design accomplishment of feeling both utterly fresh and classic, a borderline tableau recognizable as nothing but a Porsche. But it also avoided retro-retread cues long before "retro" design became a



The 718 RSK inspired the Boxster's design. Ricardo Rodríguez raced this one in 1959.

mainstream, cliché solution adopted by a variety of industries—even if the messaging was a bit muddled.

"When the Boxster was introduced, the Porsche press department drew a lot of parallels between it and the 550 Spyder, just because the 550 was well known," Larson says now. "But my inspiration was the 718 RSK, which is to me the ultimate. There was this one key photo I took at the Oldtimer Grand Prix at the Nürburgring, and that 718 RSK, it was the business. Everything about it was just for me. It was the perfect, ultimate mid-engine open car. The 550 almost looks kind of toylike in comparison, the short front end and everything. But the RSK had a little more sensuality to it."

**Mention to Larson that the original Boxster's rear end still has optical pull today, and he lights up more.**

"I love that little kind of bobtail rear end with the grilles," he says in reference to his 718 RSK inspiration. "These days, you have a design idea, you have to convince everybody where you got it from. You do these things called 'mood boards.' But we didn't have mood boards then. I just had a bunch of pictures of RSKs hanging up next to the sketch wall, [and] the modeler took the ideas and transplanted them to the full-size model. [I had] these key pictures of that car, like, that's it, that's it, that's it: That's the character I'd like to have. As the show



**LONG-TERM TEST** MotorTrend conducted a yearlong test of a first-gen 1998 Porsche Boxster not long after the car hit the market. Take a trip back to the '90s and learn about our experience by scanning this QR code with your smartphone.



car progressed in the early phases, I was trying to keep that sort of real clean, slick, timeless look—just brought up to the '90s.

“Harm Lagaay was instrumental in pushing me to take it further. He said, ‘Now we’ve got to try more things.’ He put that S curve in the cutlines, and then he got more dramatic. He said, ‘The detail,’ and did these hand movements. ‘Just throw more. It’s a show car, just throw, just throw more on it. Let’s get more stuff on it.’ I’m going, like, ‘You know, Harm, I don’t know, is that Porsche?’

“I was crossing the bridge between my personal tastes, what I thought the car should be, and, like, total overkill. I eventually hit the sweet spot of how much stuff was on the car and how it was executed. I have to give credit to Harm; no one ever does. I get a lot of credit for that car, but I was not alone.”

Despite the concept’s exceptional presentation and its well-deserved praise, it came with one tantalizingly maddening caveat: The production version was still more than three years away.

### 1996 Meets 2021

What seemed like a long wait in 1993 is a drop in the sump compared to the 25 years that have passed since the 1996 Boxster reached the streets. (It arrived in Europe for '96 and reached the U.S. in '97.) The model line is now woven into automotive pop culture, occasionally drawing caustic remarks as being the car for people who can't afford a 911. At the same time, Porsche has sold nearly 360,000 examples, making it one of the company's most successful offerings in history; only the 911 badge has endured longer among Stuttgart's production cars.

As part of its Boxster 25 celebration, Porsche handed us not only a 2021 718 Boxster 25 Years anniversary model but

PROGRESS CAN BE A  
TRICKY THING, BUT NO  
CARMAKER HAS DONE  
A BETTER JOB THAN  
PORSCHE AT EVOLVING  
ACROSS ERAS.



Grant Larson in his design office in the early 1990s, where many of the Boxster's lines and proportions came together.

also a 1997 Boxster. The '97 version is no random example: Porsche says it's the first production Boxster delivered to a U.S. customer, in this case comedian and Porsche collector Jerry Seinfeld. It was next acquired by Joe Cavaglieri, a vintage race car restorer with a history of working on RSKs. Porsche Cars North America purchased it from him in 2020, bringing it home to preserve.

Progress can be a tricky thing when it comes to mechanical items and recollections, especially yesteryear's heroes so revered in their time. But arguably no carmaker has done a better job than Porsche when it comes to evolving its products across eras, of maintaining familiarity within the driving experience, the pull of a door handle, or the blat of an engine. Engineering and manufacturing have advanced far from where they were three decades ago, but the feel from behind the wheel of the 1997 is delightfully, almost shockingly recognizable.

Inside the vintage Boxster, the cockpit's preponderance of ovoid shapes is chucklingly dated. Opposite the car's exterior, which mostly only looks old in the sense of its size and Porsche's budgetary and manufacturing limitations of the time, the interior seems influenced much more by period sensibilities of “futuristic.” It hasn't aged gracefully in that sense, but this car, with 17,272 miles on its odometer and all the telltale signs of a pampered life, has been preserved spectacularly overall.

Flawless silver paint looks like you could dive into it for a swim, and



Seinfeld richly specced this Boxster, taking its \$40,745 base price to \$65,057. Carbon-fiber trim—far from common in 1996—contributed to the cost. Today, some of these pieces show orange-peel evidence of unavoidable time-driven delamination; likewise, the clear cap over the shift pattern on top of the manual gear lever has yellowed. But that's about it when it comes to physical signs of decay. The seat padding has lost nothing of its cushion or support, and the leather-rich interior smells just as it must have on day one.

The driving position is excellent, and it's interesting to note the steering column telescopes but does not tilt;







Porsche will build 1,250 examples of the 718 Boxster 25 Years limited-edition model, with cars arriving in the U.S. right about now. The company hasn't disclosed the North American allocation.



Grant Larson and the Boxster concept.

thankfully, the vertical orientation is exactly right.

And the driving remains sublime. With the power-operated top in place, you hear creaks and rattles, largely caused by airflow bullying the plastic rear window like a trash bag caught in a cyclone. That's modern perspective talking, though, and the Boxster is meant to be driven with its top stowed, anyway. Retract the lid, and the sounds vanish.

Find a fun, open road, and the 986 comes to life, delivering thrills despite not being quick in a straight line, even by 1990s standards: When we tested it as new, its 201-hp, 181-lb-ft 2.5-liter flat-six pushed the car's 2,822 pounds—

a weight number we wish applied to today's performance cars—from 0 to 60 mph in 6.0 seconds and through the quarter mile in 14.5 seconds at 94.6 mph. But the original Boxster is an object lesson in why numbers aren't always the be-all and end-all.

Let loose and driven properly, the first Boxster reminds you what driving a sports car used to mean, even if you've only read about such a thing in books or magazines. The 986 is one of the last cars to require drivers to really understand it in order to extract the best possible experience. This means, in the simplest terms, letting the engine run to near its 6,600-rpm redline in each gear; do so, and upshifts drop the tach needle back to the low 4,000s, square in the power and torque bands.

Keep this up in a rhythm, and the car never feels underpowered as it sashays from corner to corner, the steering light and exceptionally communicative. Overall grip is impressive as you bomb your way into and out of bends on a wave of momentum. The satisfaction intensifies by the mile as the Boxster's limited power, its chassis balance and compliance, and the art required to drive it truly hard make for an engrossing experience. You must concentrate on your inputs if you desire to



dispatch roads and corners as quickly as possible, but it's a mellow sort of focus, not a strain-for-your-life heart attack.

Twenty miles into a drive along mountain roads, the Pacific Ocean twinkling below, you want to do this forever—or at least every weekend. If there's a glaring negative—though perhaps this is a positive—it's that few people who see the 986 at play are likely to have any sense of how much fun its driver is having. That, and the fact you're now destined to scour first-gen Boxster for-sale listings on a daily basis.

Park the old baby and buckle up inside the limited-edition 2021 718 Boxster 25 Years, and the new car comes across as subtle as a jackhammer outside your bedroom window at 5 in the morning. This special edition is effectively a Boxster GTS 4.0 with stylistic nods to the original show car: silver paint; red roof and interior;





copperish Neodyme five-spoke wheels, badging and air intakes; a black windshield frame; and “Boxster 25” logos in various places. (The interior and roof are available in black, the exterior in black or white.)

Next to the 1997 Boxster, the 718 may as well be a hypercar. It’s larger inside and out, of course, the exterior styling more aggressive and brash by an order of magnitude. This is still a beautiful car, even if by now, in its fourth generation, it no longer recalls classic models as much as the original does. There’s a lot more Carrera GT and 918 Spyder in this language than old road-racing Porsches. But there is no question about what it represents.

“From the very first Boxster to the current 718, we have always maintained a certain design consistency,” Larson, who contributed to the anniversary edition’s details, says. “Where the 911 has always been an evolutionary model, the Boxster has focused on younger buyers. Not only because of the price position, but how we handled the design changes throughout the generations. It was intended to take larger design steps.

“The evolution was also heavily determined by the amount of carryover parts from the 911. With the first Boxster, there were those serious financial hurdles to overcome. Throughout the generations, the car was allowed more and more to have its own individual parts such as front fenders and doors, parts that have a huge influence and dictate the overall design.”

Performance-wise, the 718 is a revolution relative to its progenitor. With 394 horsepower and 309 lb-ft of torque, we timed it from 0 to 60 mph in 4.1 seconds; the quarter mile passed in 12.2 seconds at 117.3 mph. It also pulled 1.06 g on the skidpad and stopped from 60 mph in 97 feet. Modern-day acceleration is one thing, but those skidpad and braking numbers were unthinkable for a car like this in 1996: Our test of the old Boxster yielded results of 0.94 g and 113 feet.

Over the same roads on which we drove the 986, the 718 Boxster 25 Years’

#### POWERTRAIN/CHASSIS

##### BASE PRICE

#### 2021 Porsche 718 Boxster 25 Years

\$99,950

##### PRICE AS TESTED

\$103,050

##### VEHICLE LAYOUT

Mid-engine, RWD, 2-pass, 2-door convertible

##### ENGINE

4.0L/394-hp/309-lb-ft DOHC 24-valve flat-6

##### TRANSMISSION

6-speed manual

##### CURB WEIGHT (F/R DIST)

3,144 lb (45/55%)

##### WHEELBASE

97.4 in

##### LENGTH X WIDTH X HEIGHT

172.4 x 70.9 x 49.7 in

##### 0-60 MPH

4.1 sec

##### QUARTER MILE

12.2 sec @ 117.3 mph

##### BRAKING, 60-0 MPH

97 ft

##### LATERAL ACCELERATION

1.06 g (avg)

##### MT FIGURE EIGHT

23.7 sec @ 0.84 g (avg)

##### EPA CITY/HWY/COMB FUEL ECON

17/24/19 mpg

##### ENERGY CONS, CITY/HWY

198/140 kWh/100 miles

##### CO2 EMISSIONS, COMB

0.99 lb/mile

#### 1997 Porsche Boxster

\$40,745 (\$68,742 today)

\$65,057 (\$109,759 today)

Mid-engine, RWD, 2-pass, 2-door convertible

2.5L/201-hp/181-lb-ft DOHC 24-valve flat-6

5-speed manual

2,822 lb (unavailable)

95.2 in

171.0 x 70.1 x 50.8 in

6.0 sec

14.5 sec @ 94.6 mph

113 ft

0.94 g (avg)

Not tested

17/24/20 mpg

198/140 kWh/100 miles

0.99 lb/mile

**THE 25 YEARS' CAPABILITIES ARE EXCESSIVE. YET YOU CAN FEEL THE 986 ROOTS IN ITS DYNAMICS.**

capabilities are arguably excessive. Yet, remarkably, you can feel the 986 roots in its dynamics. You must of course massively recalibrate your reference points for braking, apex speed, and how soon you can go to power on corner exit. The sport exhaust alerts canyon residents to your presence long before you’re on the scene, which isn’t an issue in the original. The PASM active suspension is both stiffer and far better at absorbing sharp impacts that can cause the 1997 Boxster to feel crashy.

The vintage model’s shifter and clutch travel are a mile long, practically buslike, versus the light-switch action of the same controls in the 718. But the modern car’s torque has the biggest effect on the experience, allowing you to keep the transmission in third gear for practically any corner. There’s no need to think about the powerband or your shift points, or to keep one eye on the tachometer—just point and go ridiculously fast. It’s a somewhat awkward sensation to reach the end of the drive route having gone massively



quicker while putting in noticeably less work. It’s stark proof of modern automotive engineering’s power and how much it has altered the fundamental sports car experience.

Of course, the same thing applies to all manner of performance cars in 2021, and the market demands it. Building automobiles is an adapt-or-die business even more so today than it was in the early ’90s, back when a small German carmaker stared down its mortality and came out the other side. For its survival, give thanks in large part to an attractive little silver roadster that was and remains one of the best driver’s cars on the planet. ■





# LETTING THE DAY GO BY

**BENTLEY, ROLLS-ROYCE, AND  
AN EPIC, SOCIALLY DISTANCED  
DRIVE UP THE PACIFIC COAST**

WORDS AARON GOLD & SCOTT EVANS PHOTOGRAPHY RENZ DIMAANDAL



A dream drive in a pair of cars from two of the world's most prestigious automakers, Bentley and Rolls-Royce? Were the world working as usual, we'd jet to old Blighty, pick up our rides in the shadow of Big Ben, and cruise up to a hotel in an old Scottish castle with haunted rooms and a French chef. Another day in the coal mines.

But the world isn't quite back to normal, so we're simplifying.

We plan to meet in Beverly Hills, one of the country's richest neighborhoods, then waft our way through tony Brentwood and Santa Monica to the ocean. We'll turn up

the Pacific Coast Highway and cruise 30 miles through some of America's finest scenery before stopping for a picnic on the beach. We'll take Route 101 up to Santa Barbara, a rather ordinary road with extraordinarily epic ocean views. From there, we'll head inland on the San Marcos Pass, a PCH alternative that offers stunning scenery with more twists and turns. After a brief foray into the curves, we'll take the back roads to our destination, the Folded Hills Winery and Farmstead.

Our rides represent the austere end of ostentation. Senior editor Aaron Gold has developed a penchant for Bentleys, so he's

chosen the Flying Spur with the newly introduced V-8, its shedding of four cylinders a portent of Bentley's transition to greener luxury. Features editor Scott Evans, a Rolls-Royce devotee, pilots the new Ghost, freshly redesigned as a smaller, more driver-oriented alternative to the Phantom. Restrained opulence for restrained times, we suppose. We aren't attempting to define which of these cars is superior, because once you get into the super-luxury realm, "superior" becomes a very slippery concept. Rather, we've simply picked our favorites, and now it's time to decide: Can automotive life get any better?





## Bentley Flying Spur V8: Drivers Won't Scoff

Rolls-Royce may well be the world's most prestigious automotive marque, but I've chosen the Flying Spur because I am a staunch Bentley man—not least because Bentley sort of *is* Rolls-Royce. After all, what the Volkswagen Group bought in 1998 was effectively all of Rolls-Royce Motor Cars' assets except for the name and logo, both of which went to BMW. Today's Bentley combines W.O. Bentley's go-faster philosophy with traditional Rolls craftsmanship, plus a little Audi brainpower woven in. In my hoity-toity opinion, it's a hard-to-beat combination.

Still, when Scott and his wife, Kathryn, roll up to our Beverly Hills meeting point in the Rolls-Royce Ghost, I can't help but feel a twinge of super-luxury envy. The Bentley is the lesser of these two cars in terms of engine, by four cylinders and 21 horsepower—and by \$171,520. The longer and taller Ghost seems to tower over the Flying Spur, triggering my own 5-foot-6 Napoleonic insecurities. To my eye, the Bentley is beautiful, sexy, and cohesive, while the Rolls-Royce is regal, far less my style. I fear if we were to decamp to the nearby Beverly Hills Hotel, the valets would award the Ghost the coveted right-out-front parking spot.

The Ghost attracts envious eyes wherever it rolls. The Flying Spur's beauty, on the other hand, is in its subtlety.



We roll past the towering apartment buildings of Wilshire Boulevard, a bit of Manhattan's Upper East Side imported to California by my fellow native New Yorkers, then turn down San Vicente Boulevard and connect with Pacific Coast Highway at one of its busiest points. The Flying Spur drives like it's impatient with traffic, and the feeling is contagious. I gun the twin-turbo V-8 to race around a rolling chicane formed by a Super Duty and a Prius, and my spouse, Robin—herself not exactly a paragon of patience behind the wheel—gives me a wifely glare. Scott and Kathryn waft by in the stately Roller, placidity plastered on their punims, and I wonder again if I've chosen the wrong car.

*Relax, I tell myself, this is supposed to be an enjoyable day out.* PCH is like a diver's decompression chamber: Slowly, ever so slowly, the relentless Los Angeles traffic begins to thin, and the harsh cliffs and \$10 million shacks gradually give way to rolling hills and expansive beaches. I loosen my grip on the wheel and try to focus less on the promise of the Flying Spur's taut chassis and more on its soothing environs. I press a button on the dash, rotating the center screen and replacing it with a trio of analog gauges, and settle into the soft quilted-leather seats. The Bentley's time to shine will come; for now, I will try to concentrate on the lovely blue Pacific. *The sea is your mirror; you contemplate your soul in the infinite unrolling of its billows.*

By the time we reach Sycamore Cove Beach, I am transformed, and our picnic lunch is a California dream: sea and sand, good food, and good friends. It's tempting to wax philosophical about the finer things in life being beyond the reach of currency, but that's an easy thing to say when you have a Spur and a Roller



parked just behind your picnic table. Quoth automotive scribe Jamie Kitman, "I am reminded that while money can't buy happiness, neither can poverty."

Hunger satiated, we saddle up and ride on. The scenery here is what California dreams are made of: Majestic hills tumble dramatically toward a restless ocean, the country terminating in the mother of all Hollywood endings. PCH begins to twist and turn around the rocks that jut out into the Pacific. In lesser cars, this is where I must back down from the posted 55-mph limit, but the Flying Spur sees no need to ease off its pace. It is giving me a taste of things to come.

We connect with Route 101, and I turn on cruise control and lane keep assistance to better enjoy the scenery. Here I find one of the Bentley's few weak spots: constant warnings to put my hands back





TIGHT AND TWISTY OR BROAD AND FAST, THE FLYING SPUR HAS THE POWER AND THE GRIP AND THE POISE TO MAKE MINCEMEAT OF ANY ROAD.



Bentley still offers the W-12 engine in the Flying Spur, but the new 542-hp twin-turbo V-8 is a sign of the marque's future direction.



on the steering wheel, which is where they already are. Worse yet, the car seems no more adept at sensing lane lines than it is at detecting the presence of my palms. I switch off the system. No doubt, if it were W.O. Bentley in the passenger seat rather than my Robin, he'd smack me upside the head. Why would anyone drive a Bentley and not want to steer themselves?

The freeway gives me a new appreciation for the Bentley's ride, which is firm by luxury car standards but not unnecessarily so. It's as if the suspension is equipped with a team of tiny people whose job is to examine each road imperfection in real time and decide if the resulting jolt will provide any useful information to the driver. Those that

will be passed into the cabin; those that won't are tossed in the rubbish bin. The experience is subtle, and it is magic.

Robin takes the wheel so I can try a stint in the Bentley's back seat. I recline, activate the massager, deploy the power-folding tray, and immediately conclude I'm in the wrong place. The Bentley's back seat is comfortable, to be sure, but it's also a bit cramped, like one of those ridiculous French elevators. Robin, meanwhile, is all smiles. She provides an unrequested demonstration of the high-speed ride quality, and I start to wonder about the feasibility of claiming a speeding ticket on my expense report. I can't really complain about the accommodations back here, but the Flying Spur is best enjoyed from the driver's seat.

North of Santa Barbara, we turn inland onto the San Marcos Pass. This is the curvy road I've been waiting for,







The Rolls-Royce Ghost defines luxury relaxation, and the Bentley Flying Spur finds its groove in the curves.

The Flying Spur's second row is first-class, but this Bentley is best enjoyed from the driver's seat.



and Bentley's Flying Spur V-8 does not disappoint. Although the 4.0-liter is the smaller of the Spur's two available engines (a 626-hp 6.0-liter W-12 is the other), 542 hp is still 542 hp. Our test team clocked the Spur to 60 mph in 3.5 seconds, half a second quicker than Bentley's claim, and praised the snappy shifts from the eight-speed twin-clutch transmission. Now I am translating those raw data points to real driving bliss. Less weight on the nose thanks to the smaller engine makes the car feel relatively light on its feet and has allowed Bentley to dial in a nice, heavy steering weight without making the car feel ponderous.

We detour off into a narrow road with sharper turns, and the Flying Spur begins to truly dazzle me, as has nearly every Bentley I have driven. As the curves get curvier, the Spur seems to shrink, and I feel as if I am hustling a tidy two-door coupe rather than a 5,405-pound sedan. Robin warns me that unless I would like to add new colors to the Bentley's purple-over-gray leather, it might be advisable to slow down. That's fine, because I have discovered the Flying Spur's superpower: It is brilliant no matter what type of curve lies ahead. Tight and twisty or broad and fast, it has the power and the grip and the poise to make mincemeat of it all.

And why should this come as a surprise? W.O. didn't set out to build great luxury cars; he set out to build great race cars. He didn't even know Rolls-Royce was purchasing his company until his wife overheard a conversation at a cocktail party. But the cars that today bear his name have benefited from the association: The Rolls-Royce is more sumptuous, but the details of the Bentley's finery, though more subtle, are no less elegant. Hand-stitched in England, after all, is hand-stitched in England.

The Flying Spur is a true driver's luxury car, a point it has hammered home repeatedly on this dream outing. I don't know how Scott and Kathryn are making out in the Rolls, but as we pull into the parking lot at Folded Hills Winery, I am confident I chose the right car. **AG**

### Rolls-Royce Ghost: The Great Life

I can see it on Aaron's face as the Flying Spur's window drops. Bentley man though he claims to be, there's no hiding that look. It's not like I surprised him by turning up in a Rolls-Royce Ghost; it was all part of the plan. Truth be told, most people who can afford one can afford the pair. That feeling you get driving something as opulent and expensive as a Bentley, that specialness, is addicting. It takes a lot to make someone driving a car like that wonder if they shouldn't have bought one of each. It takes a Rolls-Royce.







That's not to say anything unkind about his deep silver Flying Spur. Gliding under the ficus trees lining Beverly Gardens Park in the dappled morning light, the Bentley is absolutely gorgeous. It's the headlights that demand your attention, illuminated rings faceted like an antique crystal vase. It's a Bentley, so you wouldn't doubt it if someone told you they were real crystal. The sheetmetal that follows is taut and fits the lithe body like Daniel Craig in a suit. It's the first Flying Spur I've ever thought looked good, and good doesn't do it justice.

Still, the Rolls-Royce has its own appeal. The Flying Spur is sporty and elegant, but the Ghost is imposing. It commands attention. There's a presence, a resoluteness, no other marque can offer, and all the more so with this new model. In a town where

so many people drive Bentleys—even the company's PR department refers to its cars as "Beverly Hills taxis"—the Ghost manages to still stand out like the queen herself in full coronation regalia. Not everyone wants to stand out, but when it comes to cars, I do.

The philosophy is simple: If you have the means, buy the best. Whatever the vehicle type, whatever you need it to do, buy the one that does it better. When shopping for an ultra-luxury sedan that costs as much as a nice house, I look to Rolls-Royce. Yes, there are sportier sedans out there, and anyone with the means to buy a Rolls can have as many of those as they please, too.

Don't think for a minute the Ghost is merely a mobile living room. The

hood is a mile long for two reasons. First, because it looks good, and second, because a twin-turbo V-12 needs the space. There was a time when the only thing the Rolls people would say about the engine output was that it was "adequate," but such understatement is too Old Money for the decidedly modern Ghost. The company today has no reservation flaunting its 563 hp and 627 lb-ft of torque, enough to move this monster from stationary to 60 mph in 4.2 seconds. The Bentley may announce itself as the sporty model, but the Rolls can move when properly motivated.

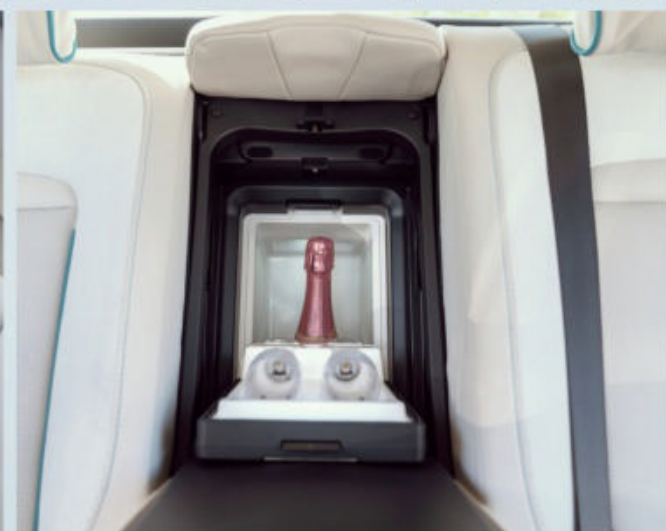
The Ghost's presence is drama enough; it has no need to create more with its movement. Effortless is both goal and modus operandi. Wafting along the broad boulevards of Los Angeles' Westside, the







THE GHOST'S PRESENCE  
IS DRAMA ENOUGH;  
IT HAS NO NEED TO  
CREATE MORE WITH  
ITS MOVEMENT.



For those who prefer to be chauffeured rather than to chauffeur others, the Ghost offers lavish back-seat accommodations, complete with a Champagne chiller.







## Folded Hills Winery and Farmstead

One hundred and thirty miles from Beverly Hills, we arrive at our destination: the Folded Hills Winery and Farmstead in Gaviota, California. Here, owners Kim and Andy Busch make wine in much the same way Bentley and Rolls-Royce build their cars: by using old-fashioned methods and craftsmanship.

General manager Tymari LoRe takes us on a socially distanced tour of the winery and the farmstead, and she explains to us what sets Folded Hills' wines apart from others. The grapes are grown organically on the hillside above the winery, and many of their varieties are still stomped by foot. "Big Wine," we learn, will frequently use additives to give its products consistency. Folded Hills does no such thing, so each year's wine tastes a little different—Mother Nature has her say in each batch.

We sample the 2019 Lilly Rosé and the 2017 Estate Grenache, and like the cars, they really are exquisite. The Lilly Rosé reminds us of the Bentley Flying Spur: light, luxurious, and beautifully balanced. The Bentley has an approachability that lends an instant familiarity, and the rosé feels the same way: It's an expensive wine, but it's delicious and easy to drink.

The Grenache, on the other hand, is much like the Rolls-Royce Ghost: bold and unique and unlikely to be mistaken for anything else. Rolls designed the Ghost for flexibility—to drive or be driven in, to waft gently or charge forward. Such is the Folded Hills Grenache: Its flavor can stand on its own, but it has the flexibility to fit the circumstances, be it a lone celebratory glass or a companion to a luxurious meal.

What unites these two very different wines is the same as what unites these two very different cars. All four are carefully hand-crafted, using methods others in their industries have long since forsaken in favor of mindless automation. All four are shaped by consumers' desires and by the forces of nature. All four are exquisite, unique, and unforgettable. **AG**

Rolls moves like a debutante in her finest gown. The feeling of imperfect pavement is allowed to reach the driver mostly to remind them the vehicle is in motion, lest their mind wander. The world outside the windows is a silent movie to be enjoyed passively, not interacted with. No one enjoys L.A. traffic, but it's far more difficult to be bothered when driving a car so detached from its grind.

Thus, by the time Kathryn and I reached the ocean, we had no pressure to relieve. We were never stressed about traffic in the first place, nor did I have any burning desire to unleash the sports car my brain knows the Rolls could be. When I needed to get around someone, I put my foot down, and that was that. Not throwing it hard into a corner never felt like a missed opportunity or something I'd even particularly want to do.

No, despite this being the driver's Rolls, smaller and sportier than the Phantom limousine, Pacific Coast Highway is its element. Meandering up the California coast quickly but effortlessly, driving a Ghost feels like stepping into a film. Your cares and worries don't matter. You're living in the moment. A picnic on the beach, basket filled with sustainably

raised and organically grown food from a fancy store you passed back in Malibu? Don't mind if we do; we have nothing else going on today. Don't forget the bubbly and crystal flutes hidden in the refrigerator between the rear seats.

Should you find yourself not driving up one of the most beautiful coastlines in the world, the Ghost offers plenty of visual distraction of its own. Who but Rolls-Royce would poke more than 1,000 twinkling fiber-optic lights through the world's highest-quality leather by hand before affixing it all to the ceiling of an automobile? The same company that would devise a way to make shooting stars appear in that same headliner. The same company that would hand-drill 850 holes into the dashboard and backlight them for a similar effect. The same company that installs a cheeky "Power Reserve" meter in lieu of other traditional gauges just to twirl about and remind you how much of the car's might you're underutilizing.

And should the other half of your convoy decide to divert from the highway to a mountain pass, there's no penalty in following them the twisty way. We've established the Ghost isn't a race car for

*MEANDERING UP THE CALIFORNIA COAST IN A GHOST FEELS LIKE STEPPING INTO A FILM.*





the road, but just as it's no slouch in a straight line, it isn't all knees and elbows in a corner. Blessed with a new chassis, an air suspension, all-wheel drive, and four-wheel steering, the new Ghost carries its 5,616 pounds well. It's a willing partner, but in a reserved way. It doesn't prod the driver, begging to be driven hard. Instead, it moves like a gymnast on a balance beam, confident and precise and deliberate, placing itself exactly at every step. Improvisation has no place here; showmanship is expressed through rigor.

Rolls-Royce is capable of building a real sports car, were it so inclined, but doing so wouldn't serve its car's primary mission. A Ghost must be as enjoyable for the chauffeur as it is for the chauffeured, and vice versa. Rear occupants, alternatively Kathryn and I, mustn't be thrown about. How the car moves matters as much in placating its riders as it does in satisfying the driver.

To be sure, I rode in the back while Kathryn drove a particularly good section of mountain road. My wife tends to drive as quickly as the vehicle feels comfortable, as Robin was doing in the Bentley. I reclined, took command of the front passenger's seat and relocated it, lowered the power-operated picnic table, and checked the day's headlines on the built-in tablet. I don't get carsick easily, but looking down at a screen on a winding road is a good way to induce it in even the most iron-stomached. Unless, of course, the car is a Rolls-Royce. Few vehicles can make the rear-seat experience so uneventful under these conditions—and that's entirely the point.

A Folded Hills wine tasting after a jaunt up the coast? That's the definition of Rolls-Royce's business. **SE**



POWERTRAIN/CHASSIS	2021 Bentley Flying Spur V8	2021 Rolls-Royce Ghost
DRIVETRAIN LAYOUT	Front-engine, AWD	Front-engine, AWD
ENGINE TYPE	Twin-turbo 90-deg V-8, alum block/heads	Twin-turbo 60-deg V-12, alum block/heads
VALVETRAIN	DOHC, 4 valves/cyl	DOHC, 4 valves/cyl
DISPLACEMENT	243.9 cu in/3,996cc	411.8 cu in/6,749cc
COMPRESSION RATIO	10.0:1	10.0:1
POWER (SAE NET)	542 hp @ 6,000 rpm	563 hp @ 5,000 rpm
TORQUE (SAE NET)	568 lb-ft @ 2,000 rpm	627 lb-ft @ 1,600 rpm
REDLINE	6,500 rpm	Not indicated
WEIGHT TO POWER	10.0 lb/hp	10.0 lb/hp
TRANSMISSION	8-speed twin-clutch auto	8-speed automatic
AXLE/FINAL DRIVE RATIO	3.31:1/1.77:1	2.81:1/1.80:1
SUSPENSION, FRONT; REAR	Control arms, air springs, adj shocks, anti-roll bar; multilink, air springs, adj shocks, anti-roll bar	Control arms, air springs, adj shocks, adj anti-roll bar; multilink, air springs, adj shocks, adj anti-roll bar
STEERING RATIO	10.0–15.4:1	13.7:1
TURNS LOCK TO LOCK	2.5	2.6
BRAKES, F; R	16.5-in vented disc; 15.0-in vented disc, ABS	15.6-in vented disc; 15.7-in vented disc, ABS
WHEELS, F; R	9.5 x 21-in; 10.5 x 21-in forged aluminum	8.5 x 21-in; 9.5 x 21-in forged aluminum
TIRES, F; R	265/40R21 105Y; 305/35R21 109Y Pirelli P Zero B	255/40R21 102Y; 285/35R21 105Y Pirelli P Zero (star)
DIMENSIONS		
WHEELBASE	125.8 in	129.7 in
TRACK, F/R	65.8/65.5 in	65.9/66.9 in
LENGTH X WIDTH X HEIGHT	209.3 x 77.9 x 58.4 in	218.3 x 77.9 x 61.9 in
TURNING CIRCLE	37.6 ft	42.7 ft
CURB WEIGHT	5,405 lb	5,616 lb
WEIGHT DIST, F/R	52/48%	53/47%
SEATING CAPACITY	4	5
HEADROOM, F/R	37.4/37.0 in	39.1/40.9 in
LEGROOM, F/R	41.9/42.9 in	41.6/41.9 in
SHOULDER ROOM, F/R	58.5/55.0 in	58.3/57.0 in
CARGO VOLUME	14.8 cu ft	17.9 cu ft
TEST DATA		
ACCELERATION TO MPH		
0-30	1.2 sec	1.5 sec
0-40	1.9	2.3
0-50	2.6	3.1
0-60	3.5	4.2
0-70	4.6	5.4
0-80	5.8	6.6
0-90	7.3	8.2
0-100	9.1	10.0
0-100-0	13.7	—
PASSING, 45-65 MPH	1.8	2.1
QUARTER MILE	12.0 sec @ 115.0 mph	12.6 sec @ 112.2 mph
BRAKING, 60-0 MPH	111 ft	107 ft
LATERAL ACCELERATION	0.94 g (avg)	0.90 g (avg)
MT FIGURE EIGHT	24.7 sec @ 0.78 g (avg)	25.3 sec @ 0.75 g (avg)
TOP-GEAR REVS @ 60 MPH	1,200 rpm	Not indicated
CONSUMER INFO		
BASE PRICE	\$198,725	\$316,500
PRICE AS TESTED	\$257,105	\$428,625
STABILITY/TRACTION CONTROL	Yes/Yes	Yes/Yes
AIRBAGS	10: Dual front, f/r side, f/r curtain, front knee	8: Dual front, front side, f/r curtain, front knee
BASIC WARRANTY	3 years/Unlimited miles	4 years/Unlimited miles
POWERTRAIN WARRANTY	3 years/Unlimited miles	4 years/Unlimited miles
ROADSIDE ASSISTANCE	3 years/Unlimited miles	4 years/Unlimited miles
FUEL CAPACITY	23.8 gal	19.8 gal
EPA CITY/HWY/COMB ECON	15/20/17 mpg	12/19/14 mpg
ENERGY CONS, CITY/HWY	225/169 kWh/100 miles	281/177 kWh/100 miles
CO2 EMISSIONS, COMB	1.15 lb/mile	1.35 lb/mile
RECOMMENDED FUEL	Unleaded premium	Unleaded premium





## M I D - E N G I N E M A D N E S S



**Y**ou can only ask this question in the context of a *Fast and Furious* film: How do you top a '68 Dodge Charger with a jet engine in the trunk? Easy: a '68 Charger with a Hellcat in the back seat. And how exactly does a Hellcat engine, even one tuned to Demon specification like this one, top a jet engine? Because it's real.

That's right, kids, the jet engine sticking out the back of the "Ice Charger" in 2017's *Fate of the Furious* was just a prop. The car was powered by a Chevy LS3 V-8 pushed back under the dashboard to make room for an all-wheel-drive system. Cool stuff, but the mid-engine Charger is the real deal.

At least, two of them are.

"We actually built nine," says Dennis McCarthy, picture car coordinator at Universal Pictures. His shop, Vehicle Effects, built the cars for the past seven *Fast* films and the *Hobbs & Shaw* spinoff.

"Now, when I say we built nine, they're not all identical," he explains. "There's two of them that were built with the





Almost nothing on this car is original, least of all the engine in the back seat, but you can immediately identify it as an original Dodge Charger.

WORDS SCOTT EVANS PHOTOGRAPHY GILES KEYTE, UNIVERSAL PICTURES



## THE REAL STAR OF *FAST 9* IS A RIDICULOUS 800-PLUS-HP, MANUAL-TRANSMISSION WIDEBODY CHARGER

mid-engine design and the transaxle. The rest—the name leaves me at the moment—there's a company that makes a plastic Hellcat motor. So the rest of them have the plastic motor in place. And we actually used an LS3 with a manual-shifted Turbo 400 automatic and a Ford 9-inch rear end for our stunt cars that we just use and abuse. But yeah, a total of nine cars, two different platforms. I'd say four and a half months, they were all done and headed off to different countries."



The hero cars that actors drove in close-up shots have real Hellcats and actually run. Mopar provided the standard 707-hp crate engines, and McCarthy had them brought to Demon spec with a pulley and a 110-octane race-gas tune from Performance Tech, the shop that tunes all the *Fast* movie cars. The now 800-plus-hp engines were mated to six-speed manual Graziano transaxles lifted from Lamborghini Gallardos.

"I feel that the clutch pedal is a key ingredient to the cool factor," McCarthy says. "In my opinion, it just has to be that way. An automatic just wouldn't have the same impact."

Rich Waitas at Magnaflow built a full custom exhaust with custom headers that route up and over the transaxle and dump out of hidden tips behind the rear bumper.

With no engine up front and no room left under the trunk for the original gas tank, Vehicle Effects mounted an 8-gallon



fuel cell under the hood. The vintage-style chrome gas cap on the passenger front fender is functional on the mid-engine cars, making trips to the gas station more like filling up a Porsche than a Dodge.

Also under the hood is a high-angle rack-and-pinion power steering setup to enable big drifts. That and the transaxle necessitated a custom, fully independent suspension at all four corners, and it gives the front-engine stunt cars a tell: the live rear-axle pumpkin hanging down. That is, if you can get low enough to see it.





"I'm always into the lowest stance possible [for the cars]," McCarthy says. "I might have gone a little too far on this one. It's definitely the lowest Charger we've ever put together, which is great. It looks awesome. But sometimes you get that high-center issue going in and out of the driveway with such a long wheelbase. For a movie car, that's great; for a daily driver, you'd probably want to raise it up a couple of inches."

All these pieces are fitted to a custom chassis built by Wisconsin's SpeedKore Performance, which also created the carbon-fiber widebody to go over the top. The Charger Daytona roofline and rear glass were chosen both to clear the Hellcat engine and to show it off. And the body and chassis were modified to stretch the wheelbase nearly 6 inches by moving the front axle forward, mostly because McCarthy doesn't like the

**"THIS IS PROBABLY THE HIGHEST-HORSEPOWER FAST AND FURIOUS CHARGER EVER BUILT."**

big front overhang that early Chargers feature. Deep-dish HRE wheels fill out the fat fenders and hide modern Brembo disc brakes.

"It's without a doubt the fastest Charger we've built," McCarthy says. "There have been a lot of Chargers that look like they have 1,000 horsepower; this one in reality is probably the highest-horsepower *Fast and Furious* Charger ever built."

Replacing the rear seat with a supercharged V-8 required a lot of interior modification. A metal and plexiglass divider helps reduce some of the heat and noise coming into the cabin, which is sparse but functional. McCarthy took

design inspiration from the Ford GT40, going so far as to incorporate brass rings in the seat covers. The bucket seats are adjustable (with tools) and don't have headrests for a period feel. Between them is, of course, a NOS bottle for the inevitable scene where even more acceleration is necessary to save the day. A flat instrument panel with simple analog gauges and toggle switches, plus a steel three-spoke steering wheel, completes the old-school look.

"The [challenge] is always trying to come up with something new," McCarthy says, "because there are only so many ways you can build a Charger, and we've done most of them. And on top of that, not only have we built numerous Chargers in different styles, but we've used the [unpainted] Nelson Racing Engines Charger [with 2,000 hp], we've borrowed other Chargers from SpeedKore, so there's a long list of Chargers that have been featured in the franchise over the years."

To move beyond the typical Charger, McCarthy turned to a frequent source of inspiration: the SEMA trade show and its wild builds. At a recent show, he says, "The SpeedKore guys were showing me [a Charger] they were working on, which looked pretty badass. And then—I don't know who owns this car, so I can't give them credit for it—there was a maybe '71ish Mustang that had a mid-engine setup in it, which was very impressive. ... One thing led to another, and I just decided, 'That's something we haven't done yet. Let's move the motor to a new location.'"

The work is surprisingly clean considering McCarthy and a team of seven had only those four and a half months to build all nine cars from scratch. And really, it was Jonny Miller and Brian Gogerty who did most of the work on the mid-engine







Dennis McCarthy and his team at Vehicle Effects have built hundreds of vehicles for the *Fast and Furious* franchise.

cars while the rest of the team built the stunt cars or moved back and forth between builds.

“As always, our biggest challenge is just trying to get it done in time,” McCarthy says. “Guys are working on the car for sometimes 14, 15 hours a day and trying to keep sane for weeks and weeks and weeks on end. But they have a lot of practice. And obviously these were extremely labor-intensive cars to build. You talk to a guy, for instance at SEMA, who built a car, they’ll go, ‘Oh, we worked on it for three or four years.’ We’ll build 180 cars in five months. It’s a whole different style of building cars, but the nice thing is you don’t have to get each door gap exactly perfect. So there are some advantages. But they do have to perform and be reliable. And they were very reliable; they had no problems during filming. They fired right up every time.”

It’s an important consideration when a custom star car can make or break a shooting schedule. At one point, the two mid-engine cars were simultaneously in Glasgow, Scotland, and Tbilisi, Georgia, shooting different scenes. Considering

these are all places where you can’t easily buy Dodge parts at the local shop, and along with all the travel and shooting, it was impressive the hero cars returned home in near-perfect condition.

“I was adamant with the guys: Don’t kill the mid-engine car,” McCarthy says. “They both came back unscathed. No damage, nothing. It was great. And that’s not normal. Usually even the cars I don’t want to get damaged end up getting damaged one way or another.”

That’s good for a lot of reasons, not least of which because the cars have a lot of traveling left to do. They’ll split up again and ship around the world on a promotional tour for *Fast 9*, then at least one will likely end up on display at one of the Universal Studios theme parks. Before they go, though, McCarthy hopes to get them out to a track and dialed in properly.

“The only thing I regret is, we didn’t have a lot of track time,” he says. “Normally we’ll build these cars, and we’ll head out to Willow Springs for the day and run them through their paces. With these cars, we were just in such a time crunch to get them shipped out. I think I made one pass up and down the street in front of my shop, and everything felt good. Into a shipping container it went, and that was it.

“Hopefully,” he continues, “when we get a little bit closer to movie release time [on June 25], we can take this car out and put it through its paces and see what it does. I have a bad feeling it’s going to have a little bit of an understeer push characteristic to it, because it’s just a ton of power, real sticky tires, and we never even [weighed] the car. I got to believe it’s 62, 63, or 64 percent rear weight bias. But hopefully with a little track time, we’ll get that tamed and see what the thing can really do.”



The seats are adjustable to accommodate actors and stunt drivers of different sizes.



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# CULTURE SHOCK

WITH *FAST 9* SLATED FOR A JUNE 25 RELEASE, WE EXAMINE THE FRANCHISE'S INFLUENCE

WORDS AARON GOLD  
PHOTOGRAPHY GILES KEYTE,  
UNIVERSAL PICTURES

Maybe you love the *Fast and Furious* moves, or perhaps you've never forgiven them for that reference to the "MoTeC exhaust." Either way, it's impossible to deny the impact the movies have had on society and car culture. With 10 films, including this year's *Fast 9*, *Fast and Furious* is one of the most successful franchises in Hollywood history. It's been 20 years since Brian O'Conner moseyed into Toretto's Market and Café for a tuna on white with no crust, and the car world has never quite been the same.

*MotorTrend* features editor Scott Evans well remembers the impact of 2001's *The Fast and the Furious*: "The buzz was everywhere. Even in my small California town, everyone had heard about this new street racing movie. I went to the theater and couldn't believe my eyes—I'd never seen so many modified imports in one place [as were in the parking lot]. The line to get into the theater was 10 times longer than normal."

Craig Lieberman served as a technical consultant for the first two films. "A lot

of people became car fans because of the movies' influence," he says today. "I hear it every day on social media: 'This movie got me into cars.'"

"It's difficult to overstate the significance of the franchise," agrees Andrew Comrie-Picard, a racer and stunt driver who worked on 2019's *Hobbs & Shaw*. "It ranks up there with *American Graffiti* as one of the most significant car culture movies of all time." For the first film, "they had the wisdom to get R.J. de Vera, an early tuner-car influencer, to consult and play the role of the video game-playing street racer. It meant the cars and the content were legit, like the 2JZ Supra and F-150 Lightning and even the VR6 Jetta, which was a thing back then."

Sung Kang is the actor who played Han, starting in *The Fast and the Furious: Tokyo Drift*, and he became a car enthusiast largely as a result of his involvement. "I think it was the first proper car film that represented a community," he says. "Usually there were very singular

American cars in most American films, but *The Fast and the Furious* featured [Japanese Domestic Market vehicles]. Bringing together the love of American iron and JDMs was really cool to see."

Along with its effect on the car community, the original *Fast and Furious* film had massive repercussions for the aftermarket industry. "I went back to the companies that provided us parts for the movie," Lieberman recalls, "companies like Sparco, GReddy, and Nitrous Oxide Systems, and they all reported their sales went up. Not hundreds of percentage points, but 1,000-plus percent."



The first film's Race Wars has inspired a generation of enthusiasts, with (legal) copycat events popping up around the globe.





Bill Tichenor was with N.O.S. when the company was asked to get involved. “They asked for a lot of NOS, so it was a gamble,” he says. “Sales went crazy the weekend the movie dropped and stayed that way for a long while. It even changed the name—people started calling it ‘naaahs’ like in the movie instead of ‘N.O.S.’ which is what we called it. [The movie] really did take the sport-compact scene from a subculture to mainstream and ultimately created a lot of new car guys and gals that are still into cars today.”

The effect on automakers was more subtle. “That whole movement of modifying Civics was completely homegrown by the kids who were doing it,” recalls Kurt Antonius, head of PR for Honda and Acura when the first *F&F* films came out.

“The Civic was kind of a hand-me-down car from parents. All of a sudden there was this movement, this interest in modifying the cars. Parts suppliers started growing out of the woodwork.

“Some of [Honda’s] executives, Japanese and American, started going to SEMA [the Specialty Equipment Market Association trade show] and going, ‘Holy Christmas, look at this!’ Everyone had a Civic in their display. Whether they were selling audio systems or aftermarket pipes or floor-mats, they had modified Civics. It was really overwhelming. And the amazing thing is that it was an organic movement the kids started themselves. It was not the result of Honda promoting anything or giving reduced parts



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## FEATURE | 20 Fast and Furious Years

The original movie drew mixed reviews from critics—in part because of this end scene—yet it spawned legions of new car fans and two decades of beloved films.



pricing. It just grew on its own, and that was the beauty of the whole movement.”

Tanner Foust, racer, TV host, and stunt driver for *Tokyo Drift*, recalls his early impressions of the movie. “The first time I saw how they brought a nitrous shot to life,” he says, “through the injection process, the combustion chamber, out the exhaust, and the car zooming away with blue flames coming from the pipe, I said, ‘This is one of the coolest things ever.’ I had never seen the emotion of acceleration put together on the screen like that. Even though I wasn’t a street racer myself, I was a huge fan of what those movies did for the aftermarket and the car enthusiast world.”

When the studio brought on Foust and fellow drifter Rhys Millen as stunt drivers for *Tokyo Drift*, “the pressure to make drifting look good on screen was pretty big,” he says. “I wasn’t a fan of all the CGI in the second film. Rhys and I took it on ourselves to convince [the producers] we needed to do as much as possible for real and try to minimize the cartoon factor.”

“I spent hours convincing the folks that were in charge of CGI that we should try [the stunts] for real, like the moment in the parking garage where the 350Z comes around and the back wing scrapes the wall of the garage. We added three or four scenes in the film that they had planned to do with CGI. We always considered it a win when they would let us try to do it for real, rather than just plugging in laptops and making it happen in CGI-land.”

Actor Kang recalls his surprise at the drifting drivers’ skill. “There was a scene where they were drifting up the parking ramp, and I remember asking, ‘Are you guys actually going to be able to do this? How are you going to hit that corner?’ Rhys put a quarter on the ground and says, ‘Watch this. I’ll hit it with my rear passenger-side tire.’ And boom, he hits

it. That’s when I realized these guys are professional athletes. It was so exciting.”

In terms of the influence the movies had on drifting, Foust says, “Before *Tokyo Drift*, whenever somebody asked me what kind of racing I did, I had to educate them on what drifting was. People thought it was just hooligans doing smoky burnouts. After *Tokyo Drift*, it became a household word. I still had to explain what the sport was about and the judging factor, but people knew the definition and related it back to its roots in Japan. It was amazing that one film could educate a generation so completely.”

Likewise, Foust remembers, drifting had an effect on Hollywood stunt driving. “In the scenes where the cars are weaving in and out of traffic, they would have something like 25 other stunt drivers in those other cars. [Millen and I] spent the whole time drifting between them, and by the end of the night, those guys were saying, ‘What the hell is this drifting stuff? This is awesome!’ After the film, some of the biggest names in the stunt world purchased drift cars and were out practicing at Buttonwillow [Raceway Park].”

The emphasis on real action remained part of the series. Comrie-Picard says of his time working on *Hobbs & Shaw*, “Director David Leitch is a real believer in authenticity. If it was physically possible to do it in-vehicle, we’d always do it.” He describes one scene, in which an Apache helicopter flies between two vehicles, as one of the most intense in his career. “The helicopter would swoop in and flare out, dropping the tail between me and the car in front of me, below my roofline. It’s something not to choke up when a military helicopter joins your car chase.”

Some lament the later movies’ full-on shift to the heist genre, but Evans is of the opinion even the first film was “a heist movie tethered loosely to the street-racing and tuning scenes. The cars were there to advance the plot but never at the center of it. What gave these movies broad reach was the everyman appeal of some nobodies from East L.A. who became the world’s biggest action heroes.

“We all joked about 17-speed transmissions, floorboards falling out at high speeds, and solving ‘Danger to Manifold’ by closing the laptop,” Evans says. “But as much as we loved tearing apart that first movie for what it got wrong, we all watched it. We all quoted it. We all talked about it. And it stuck. Twenty years later, you can throw out a quote at a car show and five more will get thrown back at you.”



As the franchise progressed, things got more extreme, like the tank scene in *Fast & Furious 6*.



## FACTS OF THE FURIOUS



5



## 20 little-known tidbits about the Fast saga in honor of the film franchise's 20th anniversary

**1** The original film was inspired by a 1998 *Vibe* article titled "Racer X."

**2** Eight different fourth-gen Supras were used to represent Brian's car in the original movie, with the production paying \$24,000 for the most expensive example. That's about the equivalent of \$35,500 in 2021. Nowadays, clean fourth-gen Supra Turbos can sell for six-figure sums.

**3** The studio originally wanted Timothy Olyphant to play the role of Dominic Toretto. Olyphant turned the part down, and Vin Diesel was cast in his place.

**4** The 1969 Dodge Charger driven by Dominic Toretto in *The Fast and the Furious* is actually a 1970 model made to look the part of a 1969.

**5** The Honda S2000 driven by Devon Aoki's Suki in the first sequel might not look familiar, but underneath its coat of pink paint sits the same exact car piloted by Rick Yune's Johnny Tran in *The Fast and the Furious*.

**6** According to *2 Fast 2 Furious*' director, the late John Singleton, Ja Rule turned down a \$500,000 offer to reprise the role of Edwin from the first *Fast* movie, a film he was paid \$15,000 to appear in.

**7** Look closely, and you'll notice a number of the vehicles featured in the warehouse scene of *2 Fast 2 Furious* are simply repurposed (and repainted) cars from the original movie.

**8** Filmmakers planned to include a replica Shelby Cobra in *2 Fast 2 Furious*. However, the car didn't make it into the movie. The Cobra replicas built for the second *Fast* film were instead used in the movie *Charlie's Angels: Full Throttle*.

**9** Rather than charge an acting fee for his cameo in *The Fast and the Furious: Tokyo Drift*, Vin Diesel instead negotiated for the rights to the character Riddick of *The Chronicles of Riddick*. Predictably, Diesel would later go on to star in and produce the 2004 movie, *The Chronicles of Riddick*.

**10** Despite coming up with the idea while making *Fast & Furious* (the series' fourth installment), director Justin Lin's dream of filming a car crashing out of the nose of a moving plane didn't see the light of day until *Fast & Furious 6*.



8

**11** The *Fast* saga has resulted in the destruction of approximately 2,500 vehicles (about 190 of which were wrecked while filming the vault heist in *Fast Five*).

**12** The off-road Dodge Charger driven by Dominic Toretto in *Furious 7* was built by Vehicle Effects, which cobbled together a total of seven such Chargers in just three months. Only one survived filming.

**13** The Toyota Supra driven by Paul Walker's character, Brian O'Conner, in *Furious 7* actually came from the late actor's personal car collection.

**14** In order to safely parachute full-size cars from a flying plane for *Furious 7*, the movie's stunt team completed six test drops—using real cars—prior to filming the scene.

**15** With worldwide box office sales totaling more than \$1.5 billion, *Furious 7* is the highest-grossing film in the *Fast* saga and the ninth-highest-grossing movie of all time. *F9*, however, could ultimately steal the crown from *Furious 7*. (Prior to *F9*'s release, the *Fast* saga had grossed more than \$5.1 billion worldwide, making it the fifth-biggest global movie franchise.)

**16** Instead of using one of the seven real \$3.4 million Lykan Hypersports in *Furious 7*, W Motors made custom Lykan Hypersport look-alikes, which featured fiberglass—as opposed to carbon-fiber—body panels and rode on stretched Porsche Boxster underpinnings rather than the real cars' RUF-sourced chassis.

**17** A Ferrari LaFerrari was originally planned to appear in *Furious 7*, but it was replaced by the Lykan Hypersport.

**18** Helen Mirren "begged" to join the films' cast, partially because she "just loves driving cars in movies." Unfortunately, her character has yet to get any time in the literal driver's seat, though that reportedly changes in *F9*.

**19** The original film had a reported budget of \$38 million, while the latest film, *F9*, reportedly cost more than \$200 million.

**20** *Furious 7* contains about 350 shots of Paul Walker that were created by using archival footage of him prior to his death or by digitally editing his face over those of stand-ins (two of which were Walker's brothers). **Greg Fink**



18

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## Sung Kang's Five Favorite Cars from the *Fast* World

We caught up with actor Sung Kang, who plays Han in the *FF* films. His involvement with the movies turned him into a die-hard automotive enthusiast, so we asked him to name his five favorite cars from the franchise.



### 5. Ford Maverick, *Fast Five*

The love for the Maverick came from that scene in Brazil, where we were doing the recon scene. Dennis McCarthy paired me up with the Maverick, and I was complaining, "How come everybody gets all these cool cars and I get this hunk of junk?" One of the Brazilian technicians went into this whole history of what the Maverick means to the Brazilian car community. I became a student of that car and fell in love with it. There's a GT version with a center console that never came to the U.S. I built a restomod version called the Underdog with a Ford 2.3 EcoBoost. These gentlemen in Brazil reached out to me and donated all these original Maverick GT parts. We built it with three students and auctioned it at Barrett-Jackson to go toward SEMA's college fund.



### 4. Pontiac Fiero, *F9*

When I was a kid growing up in Georgia when the Fiero came out, it was realistic. I felt like one day I could have that car. I knew nothing about the crappy engine and that it caught on fire all the time. Ferrari, Lamborghini, those European cars, I couldn't even spell their names. But the Fiero, made in America—that was *the* car. And when the Fiero GT came out, come on! People talk crap about the Fiero, but at the time, it was aspirational. That it's in a *Fast and Furious* movie is even cooler. I want to get a Fiero and head out to Angeles Crest Highway and create a Fiero club. That car's time is due.



### 3. Chevrolet Monte Carlo, *The Fast and the Furious: Tokyo Drift*

I feel like the Monte Carlo represents my ethos. It's ugly and unappreciated on the outside, but internally it's a raging bull. I think it's one of the coolest cars in the movies because it shouldn't be there. The patina—that car made me fall in love with patina, just keeping it raw. I love that car. It has a pimp-a-licious vibe. You can put on a fedora and just cruise and look good. Very few cars make you look good with a fedora on.



### 2. Buick Grand National, *Fast Five*

This is one of those underdogs I think people today don't totally appreciate, but the ones who do appreciate it, there's an obsession and a fervor. I love what that community represents, and I really love that car. I'm actually doing a Grand National build now with an R35 [Nissan GT-R 3.8 V-6] motor. I want to do a fusion of American and Japanese. I would never tear up a factory-correct Grand National, but I found an '84 that had been gutted. It'll be cool because the R35 is also a 3.8-liter V-6 turbo. If we can make it a single turbo that matches the Grand National's original ethos, I think it'll be a great homage.



### 1. 1993 Mazda RX-7, *Tokyo Drift*

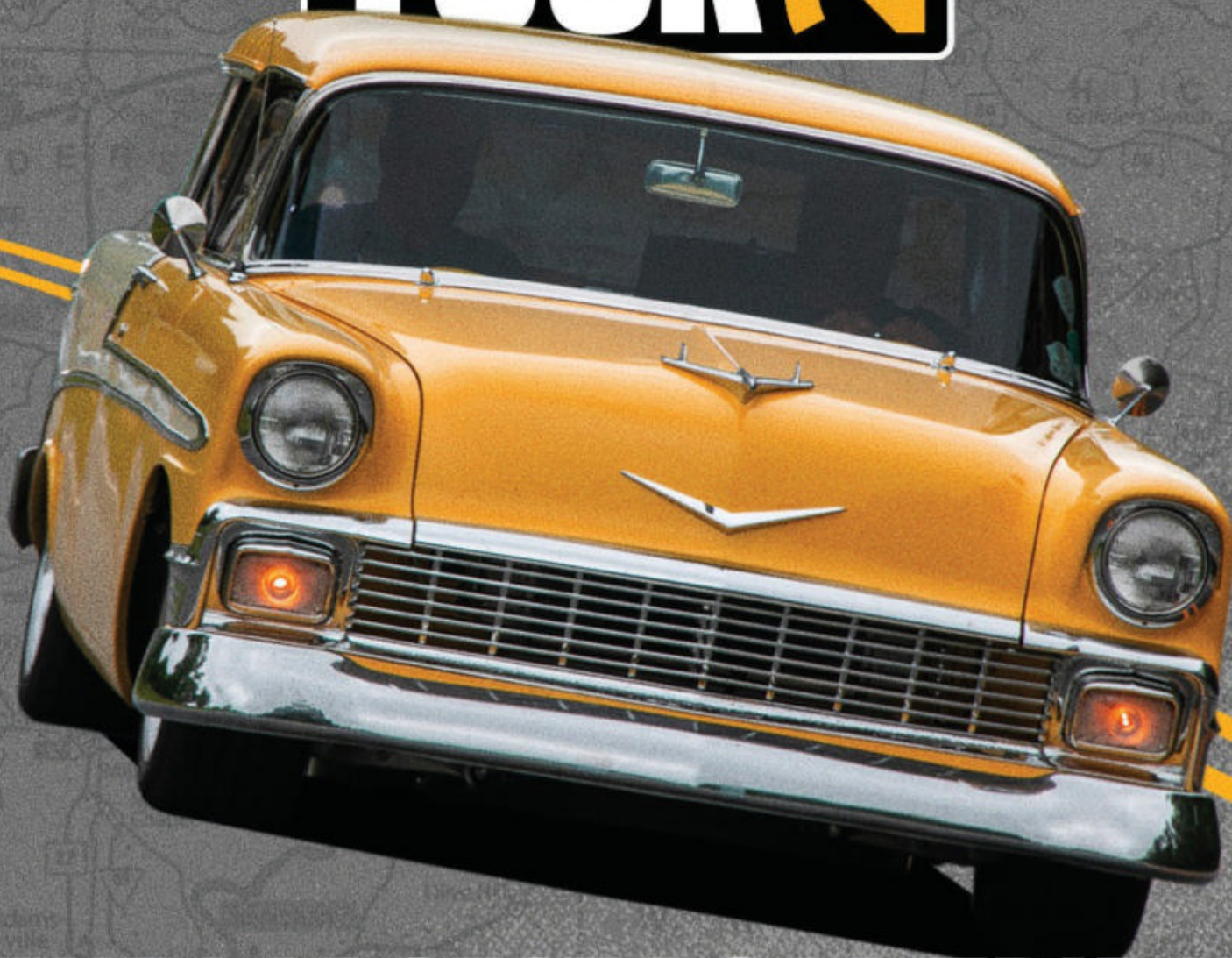
The FD RX-7 is really dear to me because I actually had one. That was the car my parents bought me to convince me to quit acting and go to law school. I didn't have a car, I was taking the bus everywhere, and my dad shows up with this RX-7. He says, "I bought you a car. I don't know what it is, it looks like a Jaguar. If you take it, then you have to go back to law school." I put it in storage because I couldn't afford the insurance. And I didn't go back to law school. It was pure serendipity that it was Han's car in *Tokyo Drift*, with that awesome VeilSide body kit. But purely coincidental.





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**M**ake a list. Write down every sports car that still offers a manual transmission. Now, cross out each one that doesn't offer it on the highest-performance trim. Next, cross out each one with an automatic option that isn't good enough to make you choose it over the manual. How many cars are you left with? You can count them on two hands, can't you? Drop anything with more than two doors, and you're down to one hand; two of the protagonists still standing are the 2020 BMW M2 CS and the 2021 Porsche 718 Cayman GT4.

The door is closing on a unique time in sports car history: There was a period

between the early 2000s and the late teens when we had an underappreciated cornucopia of transmission choice. Manual transmissions were as good as they'd ever been, single-clutch automated manuals offered enough of a performance advantage to make track-day enthusiasts and racers take notice, and the advent of dual-clutch gearboxes sealed the deal. For a relatively brief time, you really could choose either a traditional manual or a modern dual-clutch automatic and make the right decision either way.

# LAST MANUALS





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WORDS SCOTT EVANS PHOTOGRAPHY WILLIAM WALKER

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# STANDING



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### Where Are We Now?

The BMW M2 CS and Porsche 718 Cayman GT4 are the last two competitors for which that is true, and not for long, as the sun sets on this generation of 2 Series and its dual-clutch. Before it goes, BMW sends it off with the CS, a special edition with active dampers, tree-sap tires, and an extra helping of horsepower. It is the best sports car BMW has built in decades, if not ever.

The Cayman GT4, conversely, continues its slow ascendancy. Every generation gets another step closer to the immortal 911, and this one will become even more extreme with the birth of the first GT4 RS. Not that this car isn't something special with its 991.2 GT3 front suspension, special-built naturally aspirated engine, and gooey tires of its own. No Cayman has ever been this good.

With manual and automatic versions of each car in our possession, we line all

four up like a very niche edition of our World's Greatest Drag Race franchise. The BMWs tower over the Porsches. It isn't just visual weight, either. Manual or dual-clutch, the M2 CS weighs hundreds of pounds more than the Cayman GT4. The dual-clutch Porsche would win the theoretical drag race because of its incredible launch control and lower weight, followed by the dual-clutch BMW and then the manual versions of both cars immediately behind, tied for third.

Send all four around our signature figure-eight test course at once, were that possible, and even the manual Porsche would overtake the dual-clutch BMW. Although all four cars brake from 60 mph in about the same distance and three of the four accelerate similarly, there's no fighting physics in the corners. The lighter Porsches carry less mass and are simply capable of more grip and higher cornering speeds.

### Testing, Testing

Despite entirely different layouts, weight balances, and power deliveries, the Porsches and BMWs behaved remarkably similarly in our performance exercises. Road test editor Chris Walton reported all four cars exhibited tremendous braking and sharp turn-in, then tended toward mild midcorner understeer and as much on-throttle oversteer as you like during corner exit. Interestingly, the BMWs struggled more than the Porsches on cold tires, while the Porsches lost their composure more on overheated tires. Still, the end result was the same from the driver's perspective, even if the lap times weren't.

Our figure-eight layout isn't a racetrack, though, so we took the dual-clutch cars to a real circuit—the Streets of Willow Springs—and got a race car driver to flog them. Each of these models is ostensibly a track-day special, and in that sense the dual-clutch transmission's purpose







On the CS, everything but the dual-clutch transmission, carbon-ceramic brakes, and paint color is included in the base price.



too tail happy, especially off-throttle. The rear stays behind you, and the car stays balanced, even through the high-speed kink and the bumpy brake zone right after. The thing was so planted, I couldn't even really tell you if we had all the computer nannies off or not, but we did.

"The shift program was a real downer on the BMW," Pobst continued. "It was disappointing because several times it shifted up when I didn't need to, so it wasn't in the right gear when I was getting ready to leave the corner. That happened several times. It would be in too high a gear, in third, but then it would kick down. And when it kicks down to second, it blows the back tires off the car, and you get the power oversteer.

"It is not smooth, and it kicks sideways, and that messed up its laps. So I had to feed the power out gently. Coming off the long increasing-radius corner, I have a little power oversteer almost the whole way off, and it was a little tricky trying to decide how much was just right. It was kind of fun using the throttle and a little bit of countersteer. It was very nice on the way into a corner, very stable, balanced; entering the corner off-throttle is not a problem. The high-speed stability is good, almost like it has downforce, but it doesn't. There is no wing; there is a little, teeny spoiler not doing anything real."



As different as their cornering behavior was, Pobst found similarities in the cars' braking. Although he praised the BMW and the Porsche for the effectiveness of their optional carbon-ceramic brakes, he reported both ABS systems struggled with bumpy braking zones. "I could feel the ABS when it came on, and it reduced the braking," he said.

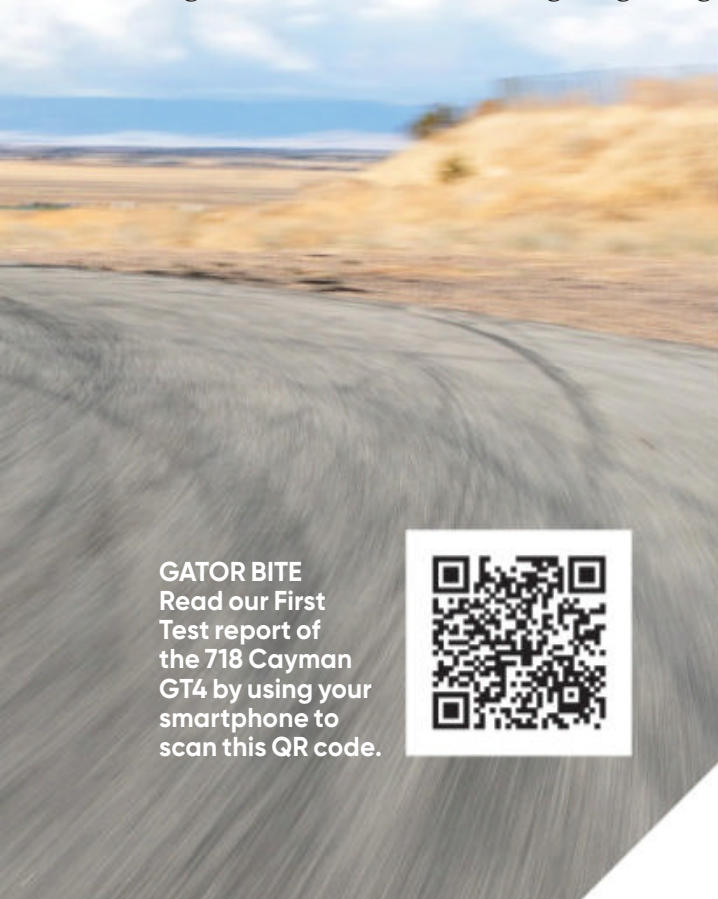
The Streets of Willow is a bumpy track, but that wasn't an equalizer. The lighter Porsche, with its superior shift programming and more downforce, laid waste. Its time of 1 minute, 19.40 seconds is the fourth-quickest lap we've ever measured at Streets and 2.32 seconds quicker than the 1:21.72 lap of the M2 CS. If you want to win races or track-day bragging rights, you absolutely want the 718 Cayman GT4.

### But Wait, There's More to It

Case closed, then? Not at all. Even amazing sports cars like this are almost universally guaranteed to spend more time on actual streets than on racetracks. As such, how they behave on a great driving road will matter as much as or more than their outright racetrack abilities to most people. Sometimes, it's a distinction without a difference—but not this time. Every editor

is to shorten lap times by reducing momentum and time lost to gear changes.

"The Porsche was the all-around best to drive, except for the annoying midcorner understeer, but it just seems so tied down in every other way," racer Randy Pobst said. "The Caymans always say 'race car' to me when I drive them. They have that mid-engine quick steering response. It has the mid-engine advantages without the disadvantage of getting



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## "THE M2 CS HAS A PUNCHY AND PUGNACIOUS NATURE THE 718 CAYMAN GT4 CAN'T MATCH."

who drove the cars said the same thing: They wouldn't kick the Porsche out of bed, but they'd rather have the BMW.

"The confidence I had in this M2 is unparalleled in any previous M2," Walton said. "It's the best BMW in years."

Associate editor Nick Yekikian was sure the Cayman would be the more enjoyable of the two, but things changed once he tasted the BMW. "Now that I've driven the M2 CS, I think the CS is more fun," he said. "The Cayman is a better, sharper machine, but the CS has a punchy and pugnacious nature the GT4 can't match. The CS is simply more fulfilling when you get it right. It doesn't take itself anywhere near as seriously and just wants you to have a good time. I'd rather have it in my driveway."

Senior features editor Jonny Lieberman agreed: "This is a special car, a rare car. It's for drivers. The M2 CS is quite obviously the end of the current 2 Series story. The frontier, the uncharted territory—you know, the car built away from the accountants and the product planners, out of the reach of the marketers. It's the rare production car that doesn't make any sense. The one that speeds up your heart, sends your pulse racing and your brain spinning. Porsche GT3s have this effect. As does the Mustang Shelby GT350R. Compromise isn't on the menu. This is why it costs so damn much.

"The GT4 is not as out on a limb as the M2 CS," Lieberman continued. "It's not

as—I hate this word, but it fits—extreme. The Porsche is great; the BMW is greater."

### Feel and Fun Matter, Big Time

The delivery is the defining difference. The Cayman's strength is also its (relative) Achilles' heel: It belongs on a racetrack, and it just doesn't find its magic on the street until you're on the bleeding edge. Problem is, that's really asking for trouble considering how fast it is. You just can't get into a cosmic groove with this car until you're driving right to the absolute limit of the road; it feels like a dance on the very edge of sanity with no margin left before catastrophe. You just wish you could enjoy the GT4 more before you extend yourself to such a hair-raising level.

We're not saying whatsoever the car isn't enjoyable before the last tenth. Rather, this 718 is so good and so precise and so isolating that it doesn't feel like you're really challenging it until the last bit, and that makes it less exciting to drive in most realistic circumstances than it should be. A lower-spec Cayman isn't as quick, but it tends to feel more emotional, more engaging, and more fun on the road. Again, though: If lots of track work is your bag, the 718 Cayman GT4 is your lunch.

The ABS issue Pobst reported is part of the problem. American roads are even bumpier than the Streets of Willow, and often in braking zones. It's one thing to feel the pedal momentarily go vague and the braking g-forces drop when you're

staring down a wide-open runoff area on a track; it's another entirely on a mountain road. The thing is, the Porsche will stop. The feeling only lasts a split second, but it shakes your confidence. It takes at least a half dozen of these "oh crap" moments before your brain accepts the car will stop regardless of what the pedal tells you in the moment.

Rear damping is also an issue Pobst reported during our last Best Driver's Car competition. Although the Streets of Willow's small, high-frequency bumps didn't trigger it, the few big bumps at WeatherTech Raceway Laguna Seca—where we've held part of our BDC event—approximate real-world mountain roads. Driving on California's famed Angeles Crest Highway, it felt as if the front and rear ends weren't working in sync. Just as Pobst said, the rear is underdamped, leaping off of bumps after using up all of its short suspension travel on the compression stroke. It just never feels fully settled, even if it hangs on like a rusted vice grip.

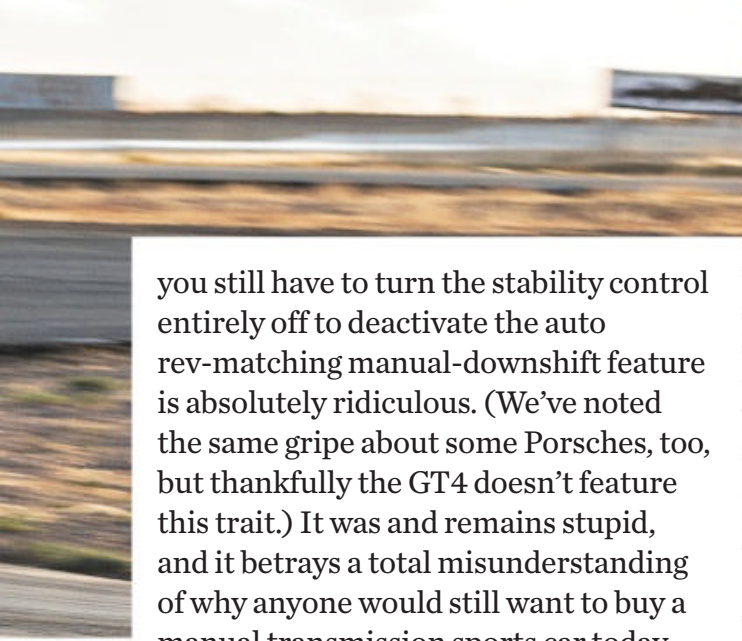
"The GT4 feels like the two ends are tuned differently," Lieberman agreed. "But that's just all nitpicky nonsense—even positive nitpicking is petty when it comes to this car."

When it came to the M2 CS, we noticed immediately that the tires are like hockey pucks when they're cold, so let 'em warm up before you get wild. It does have a blemish or two, though.

Neither the steering nor the manual shifter feel nearly as positive and direct as the Porsche's, and the girth of BMW's M steering wheel is out of control. That







you still have to turn the stability control entirely off to deactivate the auto rev-matching manual-downshift feature is absolutely ridiculous. (We've noted the same gripe about some Porsches, too, but thankfully the GT4 doesn't feature this trait.) It was and remains stupid, and it betrays a total misunderstanding of why anyone would still want to buy a manual transmission sports car today while exposing any driver who wishes to shift their own gears to needless risk. The dual-clutch transmission, for all it lacked on track during Pobst's lapping, performed as well as Porsche's did on the street. Similarly, any issue the BMW had with bumpy braking zones on the track failed to materialize as anything more than a slightly dull pedal feel on the street.

Cold tires aside, all of our drivers' notes gushed with praise for the M2 CS. This car has the moves at every speed to engage you, and the way it moves through corners really encourages you to push it. You don't have to go all out to get the magic feeling; it's there all the time. The massive midrange turbo thrust of the juiced-up motor is intoxicating, and although you have to be a little careful with it, it makes the car much more exciting at every corner exit. Then you feel the active differential pushing you out of the turn with the outside tire every time you so much as breathe on the throttle, and it comes across like the car is straining at the harness, always demanding more speed.

Put another way, when you catch slower-moving cars in the Porsche, you don't entirely mind because you feel a bit guilty about how insanely hard you were driving to get the most out of the Cayman up to that point. But come upon the same traffic in the M2 CS, and you're deeply disappointed—and desperate for a passing zone.

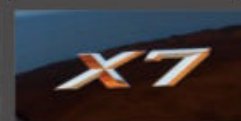
Drive all four of these cars, manuals together and dual-clutches together, and the head and heart collide. We like being quicker and faster than the other guy. We like winning. But we also like cars that speak to our souls, that remind us why we love driving in the first place. The Porsche is quicker and faster. The BMW is, in the majority of situations, more fun.

Or, as Lieberman honed in: "Look, I can make the argument the 718 Cayman GT4 is the third or fourth best-driving Porsche on sale. I can also say the M2 CS is the best-driving BMW ever made." ■

POWERTRAIN/CHASSIS		2020 BMW M2 CS	2021 Porsche 718 Cayman GT4
DRIVETRAIN LAYOUT		Front-engine, RWD	Mid-engine, RWD
ENGINE TYPE		Turbocharged I-6, alum block/head	Flat-6, alum block/heads
VALVETRAIN		DOHC, 4 valves/cyl	DOHC, 4 valves/cyl
DISPLACEMENT		181.8 cu in/2,979cc	243.8 cu in/3,995cc
COMPRESSION RATIO		10.2:1	13.0:1
POWER (SAE NET)		444 hp @ 6,250 rpm	414 hp @ 7,600 rpm
TORQUE (SAE NET)		406 lb-ft @ 2,350 rpm	309 lb-ft @ 5,000 rpm
REDLINE		7,500 rpm	8,000 rpm
WEIGHT TO POWER		7.8 lb/hp (7.9 lb/hp)*	7.6 lb/hp (7.8 lb/hp)**
TRANSMISSION		6-speed manual (7-speed twin-clutch auto)*	6-speed manual (7-speed twin-clutch auto)**
AXLE/FINAL DRIVE RATIO		3.73:1/3.13:1 (4.17:1/2.79:1)*	3.89:1/3.15:1 (3.62:1/2.57:1)**
SUSPENSION, FRONT; REAR		Struts, coil springs, adj shocks, anti-roll bar; multilink, coil springs, adj shocks, anti-roll bar	Struts, coil springs, adj shocks, anti-roll bar; struts, coil springs, adj shocks, anti-roll bar
STEERING RATIO		15.0:1	13.2-17.1:1
TURNS LOCK TO LOCK		2.4	2.6
BRAKES, F; R		15.8-in vented, drilled carbon-ceramic disc; 15.0-in vented, drilled carbon-ceramic disc, ABS	16.1-in vented, drilled carbon-ceramic disc; 15.4-in vented, drilled carbon-ceramic disc, ABS
WHEELS, F; R		9.0 x 19-in; 10.0 x 19-in forged aluminum	8.5 x 20-in; 11.0 x 20-in forged aluminum
TIRES, F; R		245/35R19 93Y; 265/35R19 98Y Michelin Pilot Sport Cup 2 (star)	245/35R20 95Y; 295/30R20 101Y Michelin Pilot Sport Cup 2 N1
DIMENSIONS			
WHEELBASE		106.0 in	97.8 in
TRACK, F/R		62.2/63.0 in	60.6/60.4 in
LENGTH X WIDTH X HEIGHT		175.6 x 73.7 x 55.7 in	175.5 x 70.9 x 50.0 in
TURNING CIRCLE		38.4 ft	37.5 ft
CURB WEIGHT		3,485 lb (3,517 lb)*	3,127 lb (3,247 lb)**
WEIGHT DIST, F/R		51/49% (52/48%)*	44/56% (43/57%)**
SEATING CAPACITY		4	2
HEADROOM, F/R		40.1/36.5 in	39.1/- in
LEGROOM, F/R		41.5/33.0 in	42.2/- in
SHOULDER ROOM, F/R		54.4/53.4 in	51.3/- in
CARGO VOLUME		13.8 cu ft	5.2 (front); 9.5 (rear) cu ft
TEST DATA			
ACCELERATION TO MPH			
0-30		1.8 sec (1.7 sec)*	1.8 sec (1.3 sec)**
0-40		2.7 (2.4)*	2.4 (1.9)**
0-50		3.3 (3.1)*	3.3 (2.5)**
0-60		4.1 (4.0)*	4.1 (3.4)**
0-70		5.0 (4.9)*	5.0 (4.4)**
0-80		6.4 (6.0)*	6.1 (5.5)**
0-90		7.5 (7.2)*	7.5 (6.8)**
0-100		8.9 (8.7)*	9.0 (8.4)**
0-100-0		13.1 (12.7)*	12.9 (12.3)**
PASSING, 45-65 MPH		1.5 (1.6)*	1.8 (1.6)**
QUARTER MILE		12.4 sec @ 117.6 mph (12.2 sec @ 119.7 mph)*	12.3 sec @ 117.9 mph (11.8 sec @ 117.5 mph)**
BRAKING, 60-0 MPH		101 ft	106 ft (100 ft)**
LATERAL ACCELERATION		1.00 g (avg) (1.02 g (avg))*	1.05 g (avg)
MT FIGURE EIGHT		24.0 sec @ 0.81 g (avg) (23.7 sec @ 0.84 g (avg))*	23.2 sec @ 0.88 g (avg) (23.1 sec @ 0.87 g (avg))**
1.6-MI ROAD COURSE LAP		(81.72 sec)*	(79.40 sec)**
TOP-GEAR REVS @ 60 MPH		2,200 rpm (1,800 rpm)*	2,400 rpm (1,900 rpm)**
CONSUMER INFO			
BASE PRICE		\$84,595	\$101,550
PRICE AS TESTED		\$93,095 (\$96,545)*	\$119,600 (\$127,120)**
AIRBAGS		6: Dual front, front side, f/r curtain, front knee	6: Dual front, front side, front curtain, front knee
BASIC WARRANTY		4 years/50,000 miles	4 years/50,000 miles
POWERTRAIN WARRANTY		4 years/50,000 miles	4 years/50,000 miles
ROADSIDE ASSISTANCE		4 years/Unlimited miles	4 years/50,000 miles
FUEL CAPACITY		13.7 gal	16.9 gal
EPA CITY/HWY/COMB ECON		17/24/20 mpg	16/23/19 mpg
ENERGY CONS, CITY/HWY		198/140 kWh/100 miles	211/147 kWh/100 miles
CO2 EMISSIONS, COMB		0.99 lb/mile	1.05 lb/mile
RECOMMENDED FUEL		Unleaded premium	Unleaded premium

\*2020 BMW M2 CS (automatic) \*\*2021 Porsche 718 Cayman GT4 (automatic; Euro spec)



UPDATE  
BMW 228iUPDATE  
BMW X7

## Updates on our long-term fleet

# MT GARAGE

PHOTOGRAPHY MT STAFF

It's been a long time coming, but finally—*finally!*—we get to spend the next year with a mid-engine Corvette.



### Arrival: 2021 Chevrolet Corvette Z51



**EPA City/Hwy/Comb Fuel Econ**  
15/27/19 mpg

**"Seven years ago, I helped break the mid-engine Corvette story. Now I get to live with the real thing." Scott Evans**

Base Price \$75,585 As Tested \$80,420

**A**s you probably know, the 2020 Chevrolet Corvette was our 2020 Car of the Year. As with every Of The Year winner, Chevrolet agreed to provide us with a car on a one-year loan to evaluate how the winner holds up under heavy use. Why, then, more than a year after we crowned the Corvette, are we just now introducing our 2021 Corvette Z51? It's a long story.

Unsurprisingly, we weren't the only ones smitten by the mid-engine Corvette. All y'all wanted one, too. And that's where things went sideways. First, a United Auto Workers strike pushed the launch back from December 2019 to February 2020. Fair enough; collective bargaining is important. Chevy finally

restarted the plant in late February, only to shut it down again in March when COVID-19 reached pandemic status. Two months passed before production resumed, and Chevrolet was pressed to get cars into customer hands as quickly as possible. That's fair, too. So we waited.

And waited. Chevy had to extend the 2020 model year just to make good on all the dealers' preorders. Then it was fall, and our car was finally built and on its way. There's a bad picture on my phone of it the day after it arrived in early October; I didn't even get to drive it that day because I was in the middle of reviewing an Airstream trailer, and the 'Vette don't tow. I'd barely saved the seat position before I had to

ignore the C8 again to go judge Best Driver's Car. Then there was the launch of the Bronco Sport, and on, and on.

Finally, in late October, I got to put in some solid miles. I couldn't believe my luck, getting a year with the mid-engine Corvette *MotorTrend* had been begging for since the '60s.

A reckless cab driver put an end to that on November 11. I actually missed the call because I'm lame and was in bed by 10 p.m. Associate online editor Nick Yekikian was going for a late-night cruise up Highway 1 in Santa Monica when a cabbie in a Prius decided to make an illegal U-turn from the right shoulder without looking.












Quick reflexes, both Nick's and the Corvette's, turned a potential T-bone accident into a glancing blow. The Corvette struck the Prius right on the 'Vette's front corner, just below the passenger-side headlight, leaving a trail of damage down the side of the car. The Corvette won the fight, though; it took the front off the Prius.

**SPECS VEHICLE LAYOUT** Mid-engine, RWD, 2-pass, 2-door hatchback  
**ENGINE** 6.2L/495-hp/470-lb-ft OHV 16-valve V-8  
**TRANSMISSION** 8-speed twin-clutch auto **CURB WEIGHT (F/R DIST)** 3,643 lb (40/60%) **0-60 MPH** 3.1 sec **QUARTER MILE** 11.4 sec @ 120.4 mph  
**BRAKING, 60-0 MPH** 99 ft **LATERAL ACCELERATION** 1.01 g (avg)  
**MT FIGURE EIGHT** 23.4 sec @ 0.86 g (avg) **ENERGY CONS, CITY/HWY** 225/125 kWh/100 miles **CO2 EMISSIONS, COMB** 1.03 lb/mile





ARRIVAL CHEVROLET CORVETTE	HONDA CIVIC SI	HONDA ODYSSEY	UPDATE HYUNDAI SONATA	KIA SOUL	UPDATE KIA TELLURIDE	MAZDA CX-30
						
						
MERCEDES-BENZ GLE 450	NISSAN SENTRA	RAM 2500 HD	SUBARU OUTBACK UPDATE	TOYOTA GR SUPRA UPDATE	TOYOTA VENZA UPDATE	VOLVO XC40



**STAY UP TO DATE** with our entire long-term fleet. Hit the QR code with your smartphone and spend some time with us in the MT Garage.

Thankfully, everyone was unharmed, and the cabbie took responsibility for the crash. Still, it left us back at square one. While the insurance company mulled over what it wanted to do, Chevy offered to get us a new one. Unfortunately for us, the C8 hadn't gotten any less popular. The Chevy people figured they could get us a new one by March and, after moving a few mountains, got an identical car built and shipped to us in early February.

And we do mean identical. Meet our 2021 Corvette,

spec'd exactly the same as our short-lived 2020 Corvette, down to the last option. Coupe, 2LT trim level, Rapid Blue paint, Natural leather interior, just like before. It's \$67,295 in that configuration, but of course we ordered the Z51 performance variant, which added \$5,995. We also added the separate Z51 performance suspension with electronically adjustable magnetic dampers for \$1,895, the equally essential nose-lift system for \$1,995, and the \$1,495 GT2 bucket seats for the inevitable track day.

Chevy even made sure to spec the exact same exterior trim, from the \$595 Edge Red brake calipers to the \$550 black-painted composite rockers and the \$100 mirror caps painted Carbon Flash Metallic (black). Add \$500 for the blue paint, and it comes to the same \$80,420 as before.

Seriously, if not for the date stamp, you'd think that picture on my phone is of the same car.

So we're trying this again. We have a mid-engine sports car in our long-term fleet for the first time in years, and it's not some six-figure exotic. It's an all-American, all-V-8 Corvette. It's the Corvette the car's father wanted to build nearly 70 years ago, the car we begged Chevy to build for seven decades, and it's ours for a year. Let's drive.



## 2020 BMW 228i Gran Coupe



**Service Life:** 7 mo/9,940 mi  
**Average Fuel Econ:** 24.9 mpg

**"Stuck at the entrance of a very busy car wash is not where I wanted to find myself."**  
**Brian Vance**

**Avg CO2** 0.78 lb/mi **Energy Cons** 135 kWh/100 mi **Unresolved Problems** None **Maintenance Cost** \$0 **Normal Wear** \$0 **Base Price** \$38,495 **As Tested** \$48,495 **EPA City/Hwy/Comb Fuel Econ** 23/33/27 mpg

As I pulled up to the pay kiosk at my local drive-through car wash, I noticed a sign that read, "Tesla drivers, make sure you know how to put your vehicle in neutral before entering car wash." I smiled, assuming many Teslas must have struggled to enter the wash before management decided to hang the sign.

Fast-forward two minutes, and the 228i and I were also struggling as we entered the wash tunnel's conveyor tracks. The attendant motioned for me to put the vehicle in neutral, but try as I might, the BMW's gear selector kept toggling from drive to reverse and back again. I got nervous, rolled the window down, apologized to the agent, and then told him I've found neutral before, but for some reason the secret sauce to dropping the transmission into "N" now eluded me.

Meanwhile, as the conveyor tried to grab my back tire to move me past the various sprayers and brushes, its small-wheeled pusher device kept bumping my left rear tire, lifting the sedan and causing my stress level to rise. After about three rounds of being jostled and jolted by the conveyor apparatus, and countless attempts to toggle from drive

to neutral, the "N" finally lit up green, and a sense of relief swelled over me.

A few minutes later, I exited the tunnel, parked in a vacuum stall, and reached for the driver's manual. I began flipping pages to better understand what was happening during my foiled attempts. It turns out nothing was broken or operating wrong; rather, I just didn't know how to do it. Per the cryptic manual, you select neutral by moving the gear selector from drive or reverse.

This much I assumed, but what the manual fails to mention is you can only do this by moving the gear selector with a sort of half-tap motion, not the full tap that is required to go from park to drive or park to reverse. Apparently, I was going full tap in all my attempts, which made the selector skip right past neutral each time, not lighting the "N" for even a split second.

I sat there practicing over and over again, making sure I seared the small tap movement into my muscle memory. I've even adopted a habit of practicing whenever I'm stopped with the engine running.

Should neutral be so challenging to find? Probably not. But rest assured, it's there. BMW just makes you work a bit for it.





A recent software update addressed some of our concerns about the Outback's infotainment display.



The other big update improves CarPlay functionality. Finally, the empty space beneath the CarPlay display (above) is gone, and it stretches all the way to the HVAC display on the bottom. That means it will show whatever app you're using on a greater portion of the screen, and Apple Maps directions can now appear in the instrument-cluster display and at the top of the big display, too. The HVAC controls are still tough to use at speed, though.

Subaru tells us it's working with Google to help support a full-screen Android Auto layout like the newer CarPlay display. Earlier this year, the automaker offered an update for our Outback (and the 2020 Legacy) that added an engine stop/start shortcut button near the bottom of the home screen. Easier access to the stop/start button should please lots of Outback/Legacy drivers, as the tech simply doesn't work as smoothly as it should with the 2.4-liter engine. Now it's easier to turn off.

Other additions include improved voice recognition, bug fixes, and performance improvements. Every subsequent can be done over the air without having to leave your driveway.

Now that our Outback's system is updated, the Subaru's built-in maps and Apple CarPlay experience has improved. No software update, however, can improve or add more space below the giant screen to (wirelessly) charge your phone: The phone slot beneath the dash is inconvenient to use when the gear stalk is in park.

We've also previously called the HVAC controls at the bottom of the screen miniature; some of us have accidentally turned the A/C off while trying to adjust something else. Unfortunately, it remains a minor problem. Occasionally, I'll want to adjust the fan speed, but I wait until I'm stopped or have finished rounding a curve; operating those controls requires looking down more than should be necessary.

While we're on the subject of temperature controls, the physical temperature buttons on either side of the screen should protrude more from the dash or turn into another knob or slider control. That would make it easier to adjust the temperature without looking, and without fearing you'll accidentally hit one of the nearby buttons.

Although the changes improve the experience in meaningful ways, infotainment still isn't the Outback's strong suit. I much prefer the dual-screen setup in my father-in-law's new 2020 Forester Sport. That's OK; the Outback makes up for it in other ways. It's not perfect, but the Subaru's overall versatility, value, image, and smooth ride make it a top pick in its segment. And we're grateful Subaru continues to improve the system. Just the same, I'll be happy if the 2022 Forester sticks with its horizontal screen layout and abundance of physical knobs.

## 2020 Subaru Outback



**Service Life:** 9 mo/10,491 miles **Average Fuel Econ:** 21.0 mpg

**"Let's talk Outback infotainment updates." Zach Gale**

**Avg CO2** 0.92 lb/mi **Energy Cons** 160 kWh/100 mi **Unresolved Problems** None **Maintenance** \$214.03 (oil change, tire rotation, inspection) **Normal Wear** \$0 **Base Price** \$35,905 **As Tested** \$37,995 **EPA City/Hwy/Comb** 23/30/26 mpg

You can't miss it. An enormous Volvo-like touchscreen lives at the center of almost every 2020 and 2021 Subaru Outback, just waiting to be swiped and touched. The tech wasn't well received during our 2020 SUV of the Year testing, but what about now, after spending nearly 10,000 miles behind the wheel of our Outback Onyx test car? Although some frustrations remain, a recent infotainment system update introduces positive changes.

A huge screen has enormous show-room appeal to those who still associate such expansive digital real estate with luxury cars. And that's true whether we're talking about the 12.0-inch screen in the 2021 Ford Edge or the Outback's 11.6-inch touchscreen. You'll find the Subaru's big screen on all but the base Outback, which means every model with an MSRP of about \$30,000 on up will have it. (The base trim gets two 7.0-inch screens.)

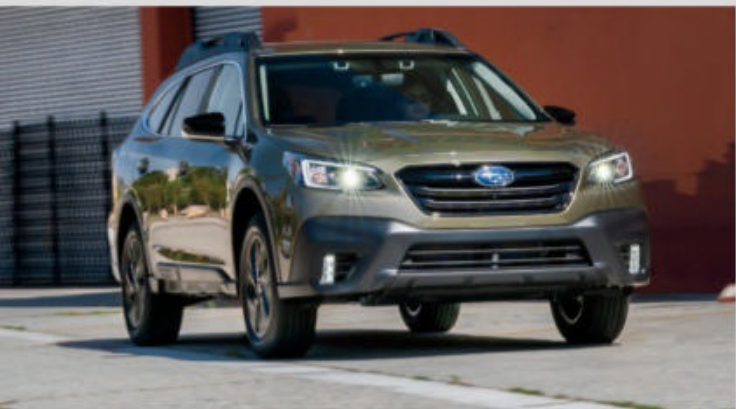
You'll love the Outback if you like tinkering with settings to optimize appearance. At the top of the vertically oriented display is a thin strip of info with a few options—you can select one of the Onyx trim's X-Mode settings, see audio info, or my favorite, a three-way split screen (below). Our Outback now shows a compass, a speed-limit display, and calendar info (because sometimes one day blends into

another). Below that are nine icons you can customize (sound settings, navigation, etc).

I've also come to really appreciate the instrument cluster's display. In a small space, one available readout shows the song title and artist, often without cutting off the end of the text—some larger displays can't manage the same. And as with most recent Subarus, I get a kick out of the way the car in the display illuminates its taillights when you apply the brakes.

At 2020 SUV of the Year testing, we complained that it displayed Apple CarPlay and Android Auto on only a small portion of the screen. The icons on the left side of the display were too small and required a careful touch. That was an everyday irritation until our Outback received a software update.

Subaru is improving the functionality of 11.6-inch screens in Outbacks and Legacys—you'll already find the updates in place on 2021 models; 2020s can get the update installed at the dealer. One update makes the built-in navigation maps more usable. In the past, the TomTom-based system would default to one map orientation every time you started the car, no matter what you chose the last time. Even though I like the graphics, that inconvenience was enough to keep me using Apple CarPlay instead of the built-in navigation.





# “slippery”



When you get down to it, it's not what the manufacturer says about his product that counts, but what the customer says. And folks who tried this wax had a lot to say. "Beyond impressed", "stunning", "off the charts" and yes, "slippery" are some actual customer descriptions. So, to all of you who have fallen in love with this amazing wax, we thank you heartily. To those of you who have not tried it, we hope you'll join the party and see what all the fuss is about. Learn more at [p21s.com](http://p21s.com).



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## 2021 Toyota Venza



**Service Life:** 4 mo/7,865 miles  
**Average Fuel Econ:** 33.9 mpg

**"Cargo room is our Venza's biggest flaw, but it still has sufficient space."**  
Miguel Cortina

**Avg CO2** 0.57 lb/mi **Energy Cons** 99 kWh/100 mi  
**Unresolved Problems** None **Maintenance Cost** \$0  
**Normal Wear** \$0 **Base Price** \$37,175 **As Tested** \$39,735  
**EPA City/Hwy/Comb Fuel Econ** 40/37/39 mpg

We've come to know our Venza really well after four months and more than 7,000 miles. Not only did we take a round-trip cross-country adventure in it, but it has also been a great hauler for special family visits.

There's no denying the Venza's cabin is comfortable and premium, but interior space is not one of its fortes. Whether in terms of cargo or passenger volume, the Venza isn't as roomy as some in its segment, or even a segment below. This doesn't necessarily mean it has poor interior room, but we'd still like to have a tad more space in our two-row midsize SUV.

More than passenger space, cargo room is limited. First, the cargo floor is higher than in any other SUV in the segment, making it complicated to place heavy items—such as a large suitcase—inside. During a road trip or when picking up family members from the airport, the high cargo floor makes loading luggage a harder task than it needs to be.

The Toyota RAV4 Hybrid is among the smaller yet more spacious alternatives. The RAV4's cargo volume is a roomy 69.8 cubic feet with the rear seats folded, compared to the Venza's 55.1 cubic feet. With the seats up, cargo room is 28.8 cubic feet in our Venza versus 37.6 in the RAV4 Hybrid—more than a 30 percent increase. Part of that has to do with the Venza's swoopy roofline and angled hatch. This design constraint makes it impossible to load more than two large suitcases in the hatch. Passenger volume, on the other hand, is basically the same—98.3 for the Venza versus 98.9 for the RAV4 Hybrid.



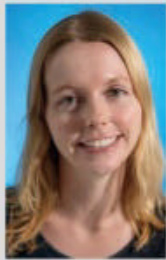
With these numbers, you might wonder why you should buy a Venza over a RAV4 Hybrid—it's more expensive and a tad less fuel efficient, and it has less cargo room. The answer lies in its beautiful design. Without the Toyota badges, the Venza could be confused for a Lexus, and it's a great alternative if the RAV4's rugged looks are too much for you.

Cargo volume aside, we've been pretty happy with the Venza's behavior during the past few months. It's already visited the dealer for its 5,000-mile service, and given that every new Toyota comes with free maintenance for two years or 25,000 miles, we didn't have to spend a dime for the checkup. Our Venza underwent a tire rotation and a multipoint inspection as part of the service, and because everything looked good with it, we were out of the dealership in just more than an hour.

We'll have to go back to the dealer to get it serviced again soon, as the 10,000-mile mark is quickly approaching.



## 2020 Hyundai Sonata



**Service Life:** 4 mo/5,943 miles  
**Average Fuel Econ:** 26.0 mpg

**"We put our Sonata's spiffy tech to the test."** Kelly Lin

**Avg CO2** 0.75 lb/mi **Energy Cons** 130 kWh/100 mi  
**Unresolved Problems** None **Maintenance Cost** \$0 **Normal Wear** \$0 **Base Price** \$34,475 **As Tested** \$34,630 **EPA City/Hwy/Comb Fuel Econ** 27/37/30 mpg



Not too long ago, I wondered how I ever lived without a rearview camera in my car. Now, I feel the same way about adaptive cruise control, a major stress-saver on highway drives and a common feature on mainstream vehicles, including the Hyundai Sonata. Not all these systems are created equal, however.

Every Sonata comes standard with adaptive cruise control with stop-and-go functionality. Our model takes it one step further with Highway Driving Assist, which helps keep the Sonata centered in its lane. It can also help the car adhere to speed limits based on GPS data. Although it's not perfect, this semi-autonomous system is quite successful at easing the driver's workload. It keeps a reliable distance between the car in front and maintains its promised



speed, even on hills, while handling stop-and-go traffic with aplomb.

One downside: Sometimes it's a bit slow to catch up when the traffic ahead starts moving faster. It also often veers to the left side of the lane within the lane markings. Steering assist isn't always reliable in major curves, but it's quite precise on

relatively straight portions of a highway.

The system doesn't automatically change lanes for you like some other cars can. But I appreciate that when I switch lanes, it speeds up to match the traffic flow.

Speaking of changing lanes, the Sonata offers another very helpful feature called Blind View Monitor: Whenever you activate the turn signal, an image appears on the instrument-cluster display to provide a live view of the lane you intend to switch into, revealing any cars in the way. It's an excellent feature, though it took me a while to get in the habit of using it. Note: The image can appear a little bit grainy at night.

So how much does this tech cost? If you get Highway Driving Assist as part of a \$2,700 technology package on the SEL Plus, you're looking at a total price tag of about \$32,000 for the car. The feature is standard on the N Line and Limited models, which cost around \$34,300 and \$35,000, respectively. It's worth the consideration if you frequently drive long distances. Blind View Monitor, however, is standard only on the top-dog Limited.



## 2020 Toyota GR Supra



**Service Life:** 9 mo/7,126 mi  
**Average Fuel Econ:** 24.4 mpg

**"Our SEO expert provides his list of complaints after a long drive."** Chris Walton

**Avg CO2** 0.80 lb/mi **Energy Cons** 140 kWh/100 mi  
**Unresolved Problems** None **Maintenance Cost** \$0  
**Normal Wear** \$0 **Base Price** \$54,945 **As Tested** \$56,565  
**EPA City/Hwy/Comb Fuel Econ** 24/31/26 mpg



If you recall from my previous update, Thomas Rosquin, manager of search and business intelligence for *Motor-Trend*, drove our Supra on a 500-mile road trip. Upon return, he sent me a list of 10 things he loved, which we covered in this space in the May issue. He didn't just sing the Supra's praises, however. Here's a rundown of the stuff he didn't love, much of which I'm inclined to agree with.

First, it's not a 2021. The 2021 Supra 3.0 received a bump in horsepower (47, to be exact), and the newer model also irons out some of the rear-end jitters we've experienced. Rosquin noted the rear's bounciness was enough to give him a headache at one point. Thankfully, the newer model already addressed these complaints.

The Supra's steering wheel buttons don't affect the instrument panel, rather the head-up display. For instance, a thumb wheel scrolls through radio stations, which is convenient. The Supra's steering wheel isn't particularly attractive, either. It's clearly a BMW part; it has chrome accents, but the rest of the car features brushed aluminum and what looks like carbon fiber.

Speaking of the instrument panel, the whole right side of the gauge cluster is empty. "It would be great to get more information in that area," Rosquin said. He also noted the display lacks brightness, and the several-menus-deep illumination is already maxed. We've found the same to be true of the 2021 Supra we tested.

There were other expected complaints. Its big rims and sporty tires can transmit a lot of road noise. The parcel shelf isn't particularly useful. The trunk doesn't

have an external release, and the interior release is tucked up by a speaker, not by the driver's seat as Rosquin expected. These are things you either accept going into the Supra or get used to, though.

He also had a handful of aesthetic complaints, though your mileage may vary. The bright yellow paint, for one, "stuck out like a thumb," he said. "Every other cop, whether on the shoulder giving a ticket or sitting parked on the side of the road, stopped what they were doing to watch me drive past. I could literally see their mouths watering." He didn't dig the rims, either. The style was fine, but the alternating black/polished aluminum spokes didn't speak to him. Finally, the horn left something to be desired. "Stuck behind a truck parade on the freeway, I thought it would be the perfect time to give it a good workout, but the sound that came out was akin to a little toot."

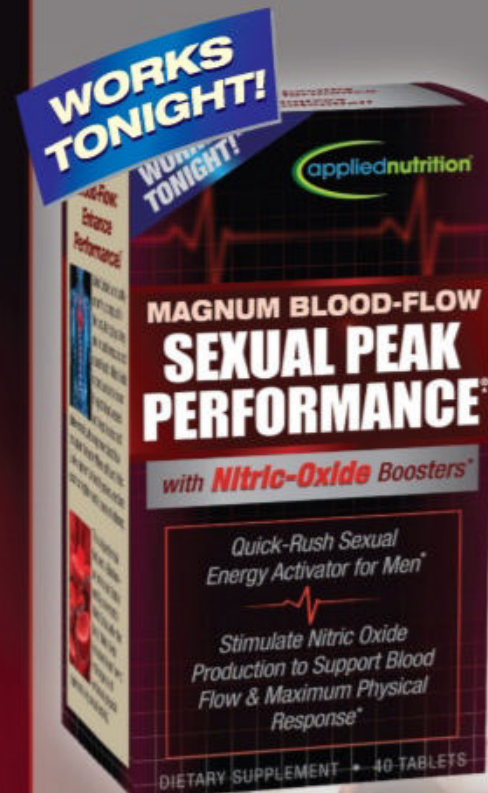
The Supra doesn't have Eco or Comfort modes, either. It's restricted to Normal and Sport (which is configurable). Rosquin felt that, for a car costing nearly \$60,000, more modes would be nice.

Finally, the big one: no manual transmission. He's hardly alone with this complaint, but thus far Toyota hasn't confirmed this will change. When we spoke with chief Supra engineer Tetsuya Tada in early 2020, he gave a number of reasons for sticking with the automatic: It produces faster lap times than a manual, it handles more torque for the inevitable Supra tuners, and it differentiates the car from the Toyota 86.

That said, Tada also told us, "It is not out of the question to see an update like that," so keep your fingers crossed.



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## 2021 BMW X7



**Service Life:** 4 mo/6,205 miles  
**Average Fuel Econ:** 16.8 mpg

**"Stop soul-searching about what makes a real BMW, and the X7 might just charm you."** Jethro Bovingdon

**Avg CO2** 1.15 lb/mi **Energy Cons** 198 kWh/100 mi  
**Unresolved Problems** None **Maintenance Cost** \$0  
**Normal Wear** \$0 **Base Price** \$74,895 **As Tested** \$96,895 **EPA City/Hwy/Comb Fuel Econ** 20/25/22 mpg



**Y**ou don't truly know an SUV until you've made it filthy, filled it to the bursting point with stuff you're throwing out or moving between domiciles, and stopped cooing over details like glass control knobs. In short, once you've used it for its real purpose: as a kind of four-wheeled home, a refuge from other people, a place to spread out and fill every nook and cranny with detritus—sometimes in places you might not want anyone to see. (Did he really leave that half-eaten banana in the footwell?). But a place that feels oddly comforting despite the accumulation of wrappers, bottles, cables, coffee cups, coins, and god knows what else.

Well, I now truly know the X7. It's taken me to dozens of *Top Gear America* shoots—mostly in hot, dry, dusty conditions—and just far enough from home that I've had to indulge in many, many snacks. It's also been filled to the brim with furniture, boxes, mattresses, and bags, putting my stateside life into storage before flying home to the U.K. As covered in previous reports, this is very definitely not My Sort of BMW.

But bloody hell, it's proven useful.

On long drives, it's deeply relaxing. The interior doesn't feel special in the way of, say, an Aston Martin DBX's. But it counters the wonderment of certain elite models with simple functionality, impeccable quality, and understated timelessness.

It feels big inside, too. Open the main hatch and then the lower part of the split tailgate, and the load area is useful even with the third-row seats in place. The simple press of a button lowers each seat individually, and you can do the same to lower the second row. Seats down, there's massive space, and it lugged my entire life on this side of the Atlantic in one load. It's no Escalade or Expedition, but it is still a BMW, and the X7 is genuinely practical in all but the most extreme circumstances. The weight barely dented the performance or the poise.

No question, the X7 is proving its worth in so many ways.

Much as the purist within wants to hate this crossover, there's no

denying it slips into life seamlessly and is endlessly useful. And with function comes fondness. I do like that I can just mindlessly go anywhere, with as much stuff as I want and in total comfort. The X7 xDrive40i is never likely to set your pulse racing or make you flush with desire. It's just a big SUV with a BMW badge on it. But after a long day of working in debilitating heat, it's a smashing way to whisk yourself home.



## 2020 Kia Telluride



**Service Life:** 12 mo/18,706 miles  
**Average Fuel Econ:** 21.1 mpg

**"I think the Kia Telluride is cool, and everyone seems to agree."** William Walker

**Avg CO2** 0.92 lb/mi **Energy Cons** 160 kWh/100 mi  
**Unresolved Problems** None **Maintenance Cost** \$74.95 (oil change, tire rotation, inspection) **Normal Wear** \$0 **Base Price** \$35,085  
**As Tested** \$36,015 **EPA City/Hwy/Comb Fuel Econ** 20/26/23 mpg

**T**he "question." Without saying another word, anyone who has ever worked for a car magazine knows exactly what I'm talking about. The "question" usually coincides with the first time you bring home a bright-red Ferrari, a glimmering Rolls-Royce, or a carbon-clad McLaren worth more than the house it's parked in front of. What do you do? Where do you work? Why do you have so many cool cars?

Other than the occasional thumbs-up, once the "question" has been answered, that's usually the end of the inquiry. But a curious thing happened when I started bringing home our long-term Telluride: People started asking questions again.

In fact, everywhere I went, it seemed like people were curious about what I thought, of how it drives, and whether it would be a worthy successor to whatever their vehicle is. When it comes to three-row SUVs, the Telluride is cool, and it seems like everyone I spoke with came to that same conclusion.

But what makes the Telluride cool? Like every popularity contest, a lot of it comes down to looks. There's no denying the Telluride is a nice-looking SUV. It's not overstyled, with a welcome lack of engorged fender flares, gratuitous body lines, and useless chrome and plastic cladding. The Telluride has a clean, sporty stylishness to it that continues to strike a chord.

The story continues on the interior, which isn't as minimalist as those of a Tesla or Volvo. Its mixture of clean lines, a stylish floating infotainment screen, and compact climate-control panel give off notes of luxury. "It's nicer than it should be," a fellow gas station patron told me.

The honest truth, though, is the Telluride isn't "nicer than it should be." That sells it short. The fact is, Kia is killing it right now. Just look at its other recent SUVs: the Soul, Sorento, and Seltos. Every single one shares the Telluride's stylish design—"confident and sophisticated," we called the look when naming the Telluride our 2020 SUV of the Year. Even Kia's new minivan, the

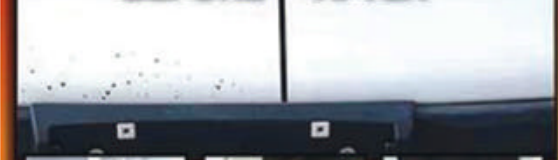
Carnival, looks awesome. So no, the Telluride isn't nicer than it should be. It's nice, period.





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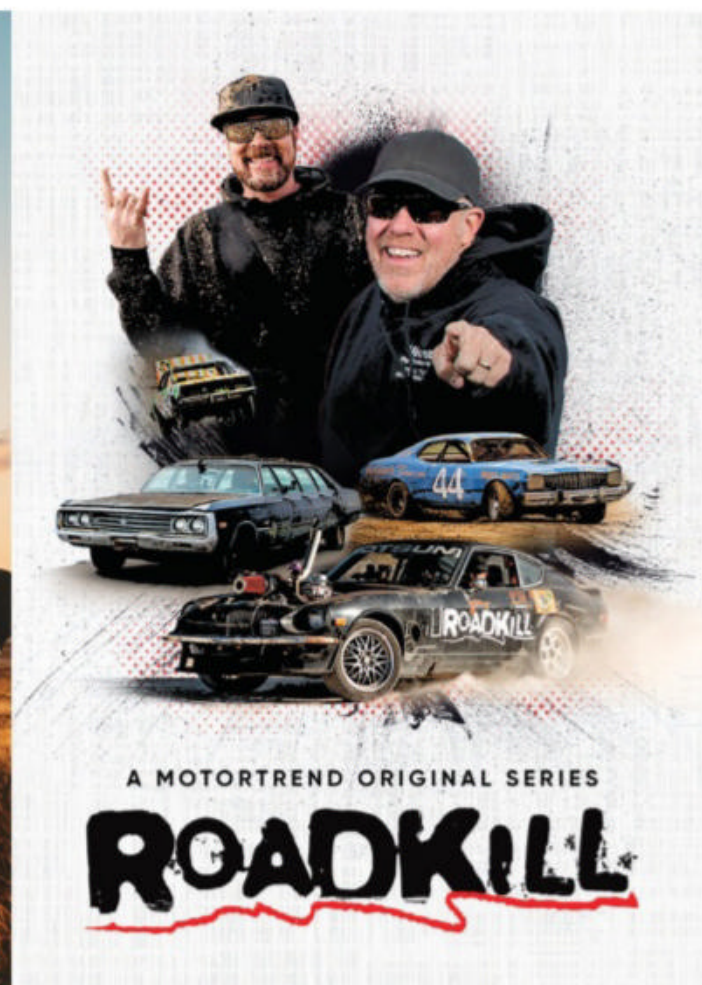
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# Angus MacKenzie

## The Big Picture



## ROAD (OUT)RAGE: We've taken our roads and bridges for granted for far too long

It's one thing to build a nation. It's something else to maintain it. The sorry state of America's roads and bridges is a case in point.

The most recent report by the American Society of Civil Engineers (ASCE) suggests 43 percent of the more than 4 million miles of America's public roadways is in poor or mediocre condition. Of the more than 617,000 road bridges located across America—42 percent of which are now at least 50 years old—about 46,000 are in questionable order, suffering significant structural problems.

The ASCE estimates getting America's road network back into shape will require an investment of about \$560 billion. The Federal Highway Administration (FHWA) admits that improving and maintaining the condition of road and bridge infrastructure will require an annual spend of \$136 billion, or \$2.7 trillion over 20 years. That includes spending \$786 billion on clearing a backlog of highway and bridge repairs the FHWA says could be economically justified for immediate implementation.

These numbers are big. But not scary big for a nation that has spent about \$14 trillion just on its military during the past 20 years. In that context, the \$621 billion the Biden administration proposes to spend over the next eight years on transportation infrastructure—not just roads and bridges but also public transit, ports, airports, and electric vehicle infrastructure—as part of its \$2 trillion infrastructure spending package doesn't seem exorbitant.

How did we let things get so bad? The simple answer is because we haven't really valued what previous generations of Americans bought and paid for. We've taken the roads and bridges they built for granted, happily enjoying the benefits while all too often skimping on essential maintenance. And now as those roads and bridges are wearing out, we're complaining about the repair cost. People who survived a depression and a world war and were determined to build a better, brighter future would likely be shocked and dismayed at our cavalier treatment of their legacy.

The Interstate Highway System is perhaps the most enduring echo of Dwight D. Eisenhower's presidency. As a young Army officer, Eisenhower experienced America's poor roads while traveling in an Army convoy across the country in 1919 (the journey took 62 days). Thirty-five



years later, as Supreme Commander of Allied Forces in Europe at the end of World War II, he immediately grasped the strategic importance of Germany's high-speed autobahns in terms of the rapid deployment of troops and materiel.

We don't like taxes, and we don't like big government. But the brutal reality is the Interstate Highway System, which today totals 48,000 miles and accounts for one-quarter of the vehicle miles traveled in America each year, would never have existed without big government to build it and taxes to pay for it. Before the Federal Aid Highway Act, which kickstarted work on interstates in 1956, highways were a state responsibility, which of course meant there was no coordinated plan-

ning or construction. This resulted in the usual farcical results: In the mid-'50s, the Kansas Turnpike famously ended abruptly in a farmer's field at the Oklahoma border.

Incredibly, the 18.4-cents-a-gallon federal tax on gasoline—and the 24.4-cents-a-gallon tax on diesel—that goes to the Highway Trust Fund to help pay for the repair and maintenance of the interstates hasn't been increased since 1993, even though inflation has cut its purchasing power by 40 percent. What's more, improvements in the fuel economy of the cars, trucks, and SUVs on America's roads since then means there's even fewer of these less valuable tax dollars collected per vehicle mile traveled.

America's roads and bridges are the sinews that connect the country's economic muscle, the arteries that enable the free and efficient flow of citizens and commerce. Construction of America's interstate network was more than just road building on a grand scale; it was nation building. If our road and bridge decay is allowed to continue, what does that say about America today? ■

**Vehicular bridge crossings in America shouldn't ever make you feel like you're on the run from Rosco P. Coltrane in a *Dukes of Hazzard* episode.**

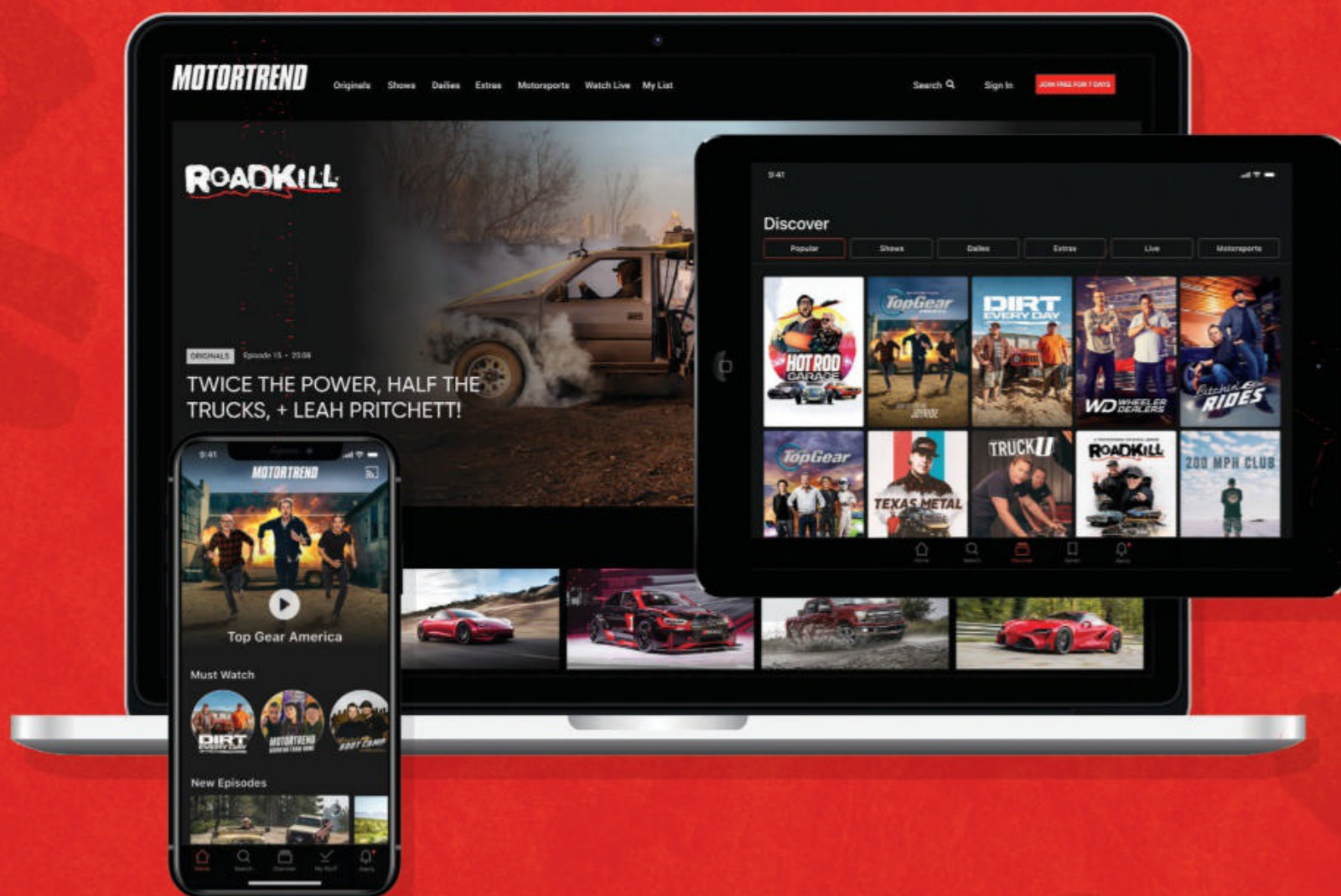
**The Interstate Highway System wouldn't exist without big government.**





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